



*IT Department By
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*Phase 2 HIS Implementation in Operation Theatre at
Paras Hospital , Gurgaon*

1. Introduction
2. Rationale
3. Objectives
4. Methodology
5. Project
6. Ethical Considerations
7. Recommendations
8. Results
9. Conclusion
10. Discussion

1. INTRODUCTION

- Healthcare is a very important part of our society & it is imperative for healthcare providers to do their jobs in an effective & efficient manner, HIS help them manage all their medical & administrative information.
- When we joined the hospital phase II HIS implementation was going on in various department of the hospital like blood bank, O.T., CSSD etc . I was assigned the work of HIS implementation in Operation Theatres. Hospital has a tie up with an external software agency who designed the basic software for the departments, I was asked to coordinate with the staff of the Operation Theatre & software agency to implement the changes in the software according to the functional requirement of dept.
- Once all the changes were being made training was given to the staff for the effective & efficient use of software. All the problems encountered while using the software were enlisted in an ISSUE TRACKER to keep the records.
- Software makes the work lot easier for the staff & enhances their efficiency. Periodic review was done to make sure the proper functioning of the software.



- *Paras Hospital Gurgaon* is a NABH Accredited 250 bedded super specialty hospital. It was the first hospital in Gurgaon region to get NABH accreditation. Since its inception it has aimed to be a preferred health care provider for all. Its expertise in advanced medical and surgical treatments helped thousands of patients receive world class quality treatment of affordable cost.
- Paras hospital is also renowned globally for its specialized international patient services. Patient from all across the globe visit Paras frequently for health checkups. Customized treatments and surgery are designed to benefit international patients.

Vision

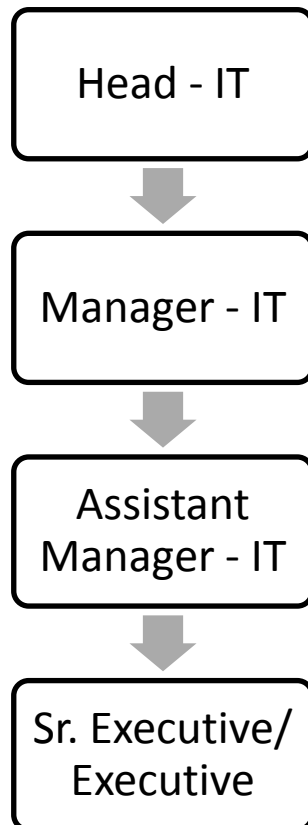
- To become **preferred healthcare** provider for all.
- **Partnership** in caring and curing.
- Providing **excellent medical care** to customers through faith in values, integrity, respect, teamwork and innovation to achieve complete patient satisfaction.

Mission

- To provide **competitive, innovative and accessible medical care** to the patients.
- To facilitate improving the health of patient by providing quality service through professionals that is affordable and delivered-
 - **Compassionately**
 - **Appropriately**
 - **Responsibly**
 - **Efficiently**



- I.T. DEPARTMENT



Key Definitions: -

HIS: Hospital Information system is software which is installed at various departments to automate different processes and MIS purposes. It is also synonymously used with word HMS – Hospital Management System

Database: It is collection of tables or files which contains the captured information from various departments or processes.

Backup Media: the media which is used to store the backup e.g., DVDs, Tapes etc

Database Server: The main computer where the actual physical database reside

- Hospital's administrative and patient related data is being captured in the HIS hence it becomes the backbone for the hospital which is precious.
- Almost all the department is dependent on the data stored in the HIS to meet the day to day requirement of their department as well as Hospital. It becomes mandatory that the backup should be taken on regular interval to avoid any data loss.
- The purpose of data backup is to establish business continuity in disaster situations in least times e.g. Fire, Flood, Server failure etc

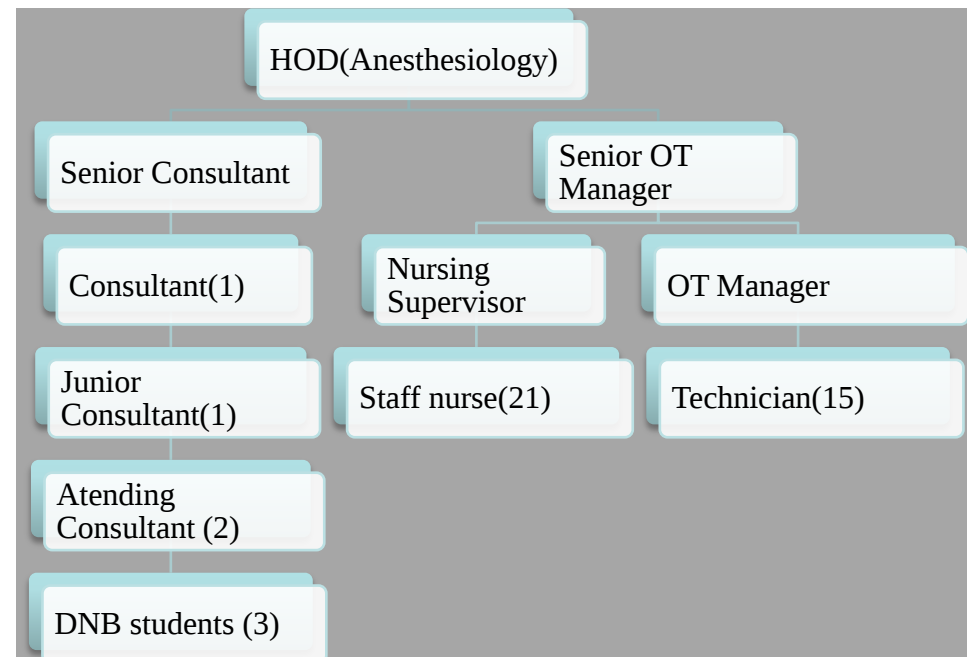
- **OPERATION THEATRE**

- Operation Theatre Complex in Paras Hospital is located on 1st floor with the restricted area for outside visitors to minimize the traffic and to maintain the sterility. Nobody is allowed inside the Complex without the Management's or Doctor's permission. It is also necessary to wear shoe-covers before entering the OT Complex.

OT Complex is divided into different areas:

- PAC Room
- PACU
- CTVS ICU
- Catheterization Lab
- Female Doctor changing room
- Changing room for OT Technicians
- Common Room for Doctors
- OT pharmacy
- 7 OTs
- 2 scrub stations
- 1 room for flash sterilization
- Dirty utility room
- OT Store Rooms

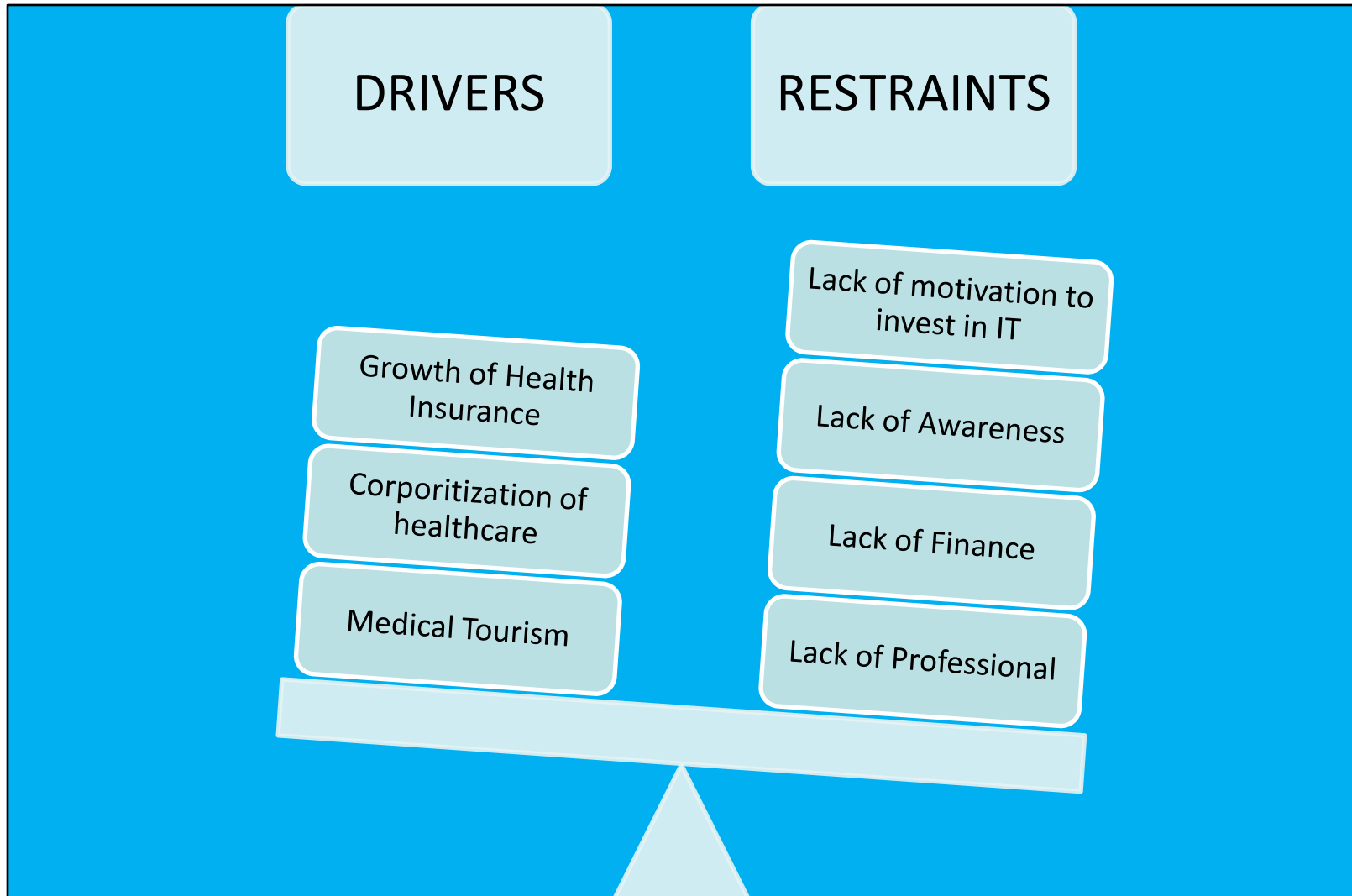
OTC Organogram:



- Healthcare is a very important part of our society and it is imperative for healthcare providers to do their jobs in an efficient and effective manner. Each day hundreds of thousands of patients enter healthcare facilities challenging the administration to run the show smoothly. The employees have to manage and integrate clinical, financial and operational information that grows with the practice.
- Previously, this data was organized manually, which was time consuming and failed to deliver the desired level of efficiency. Most professionally run hospitals and clinics now rely on hospital information systems (HIS) that help them manage all their medical and administrative information.
- Modern HIS includes many applications addressing the needs of various departments in a hospital. A centralized information system can be customized according to the specific requirements of a hospital. A hospital can tell the solution provider its needs and the applications can then be molded to deliver exactly what was demanded. For instance, you can demand a solution that is based on RDBMS for easy retrieval of information. You can also ask the vendor for a HIS that has user friendly features and a multilingual interface that can be used by a diverse workforce.



Factors considered in HIS implementation



2. RATIONALE

- To **manage the data** related to the clinic, finance department, laboratory, nursing, pharmacy and also the radiology and pathology departments.
- To have **access to quick and reliable information** including patients' records illustrating details about their demographics, gender, age etc.
- An effective HIS also delivers benefits such as:
 - **enhances information integrity**
 - **reduces transcription errors**
 - **reduces duplication of information entries**
 - **optimizes report turnaround times**
- Modern hospital information systems typically use fast computers connected to one another through an optimized network. These computers are programmed to collect, process, and retrieve patient care and administrative information ensuring better ROI and delivery of service. If the hospital authorities have more relevant information they can make better decisions.



4. OBJECTIVES

- To **computerize** all data regarding patient details and hospital details
- To **automate the process of ward entries**
- To **maintain records** effectively

5. METHODOLOGY

- **Study Design:** Descriptive Study
- **Study Area:** Paras Hospital , Gurgaon
- **Study Duration:** 2 Months
- **Data Tool:** Hospital Information Software employed in OT, having input of the data related to patients coming from OPD, IPD, and Emergency & Accident.
- **INCLUSION CRITERIA:** Implementation of Phase 2 HIS in a particular department i.e. Operation Theatre in Paras Hospital, Gurgaon.
- **EXCLUSION CRITERIA:** Implementation of HIS in other departments of Paras Hospital like Blood Bank, CSSD, Linen and Laundry, EMR, Complaint Management.

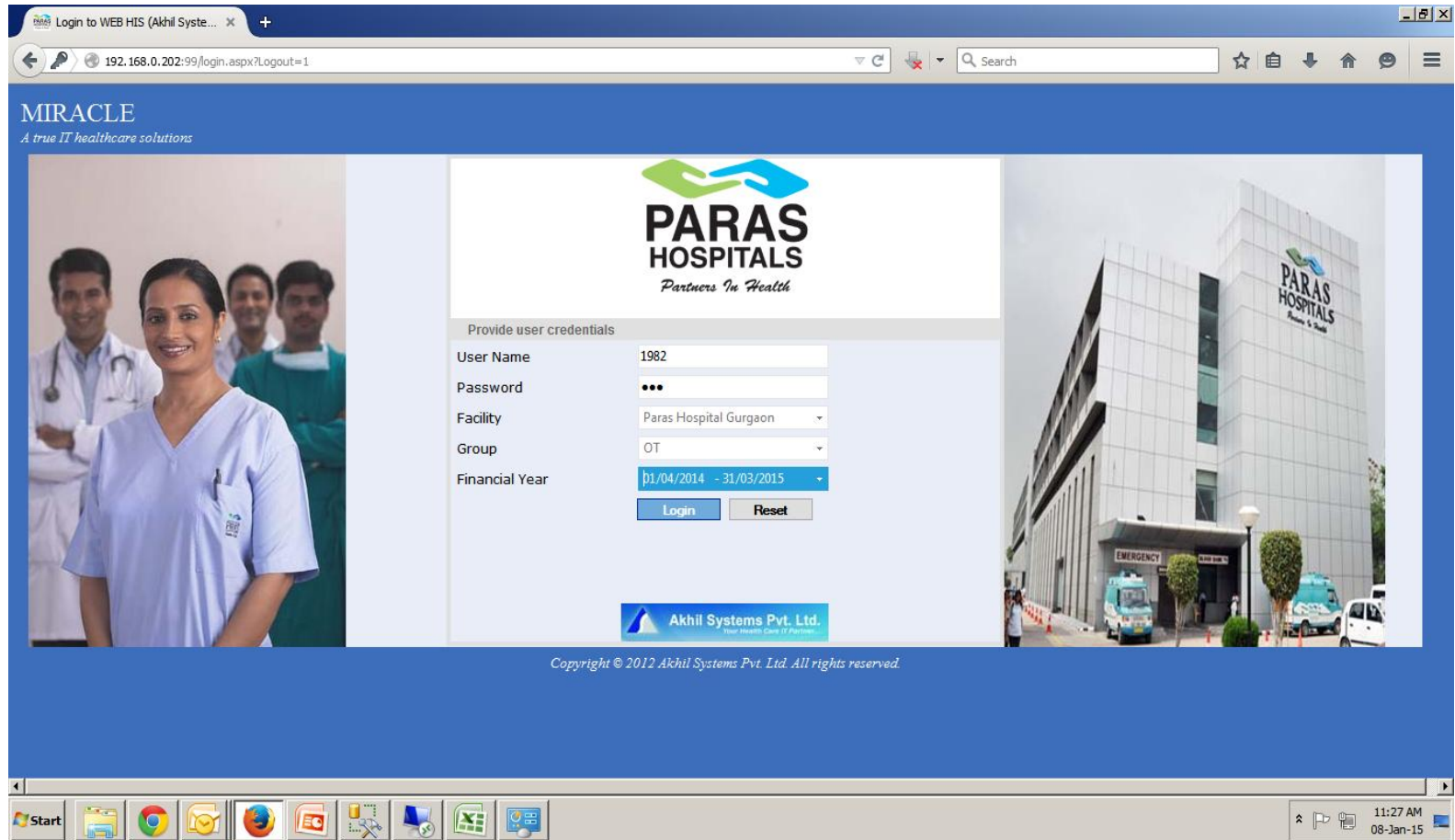


- In Paras Hospitals Gurgaon , HIS implementation Phase 1 was already completed in certain departments like Registration Front Desk, IPD, billing, pharmacy, Laboratory, Radiology, ward management, etc. , as the work load and data entries were excess in these departments.
- Now, HIS Implementation Phase 2 for following departments started- Blood bank, OT, CSSD, Linen and Laundry, MRD, EHR, Equipment maintenance, Housekeeping departments.
- Paras Hospitals had tied up with external agency for the software. The software provided basic functionalities and our task to track the process in departments and refine the system according to the needs of the department and to train their staff to use the system efficiently.



- In Operation Theatre HIS implementation the software extended a helping hand while recording following things:
 - OT Scheduling
 - Reports
 - Tracking registered patients
 - Patient Details
 - OT Checklist
 - Doctors and staff appointed
 - Earlier they used to note every detail manually and maintain records, but after HIS, most of the records and entries were done on system. The software can be utilized in many ways to generate reports and to maintain easily retrievable data for discussions and check department efficiency.

The steps involved in HIS entries in OT department:



Login to WEB HIS (Akhil Syste... x

192.168.0.202:99/login.aspx?Logout=1

MIRACLE
A true IT healthcare solutions



Partners In Health

Provide user credentials

User Name 1982

Password ●●●

Facility Paras Hospital Gurgaon

Group OT

Financial Year 01/04/2014 - 31/03/2015

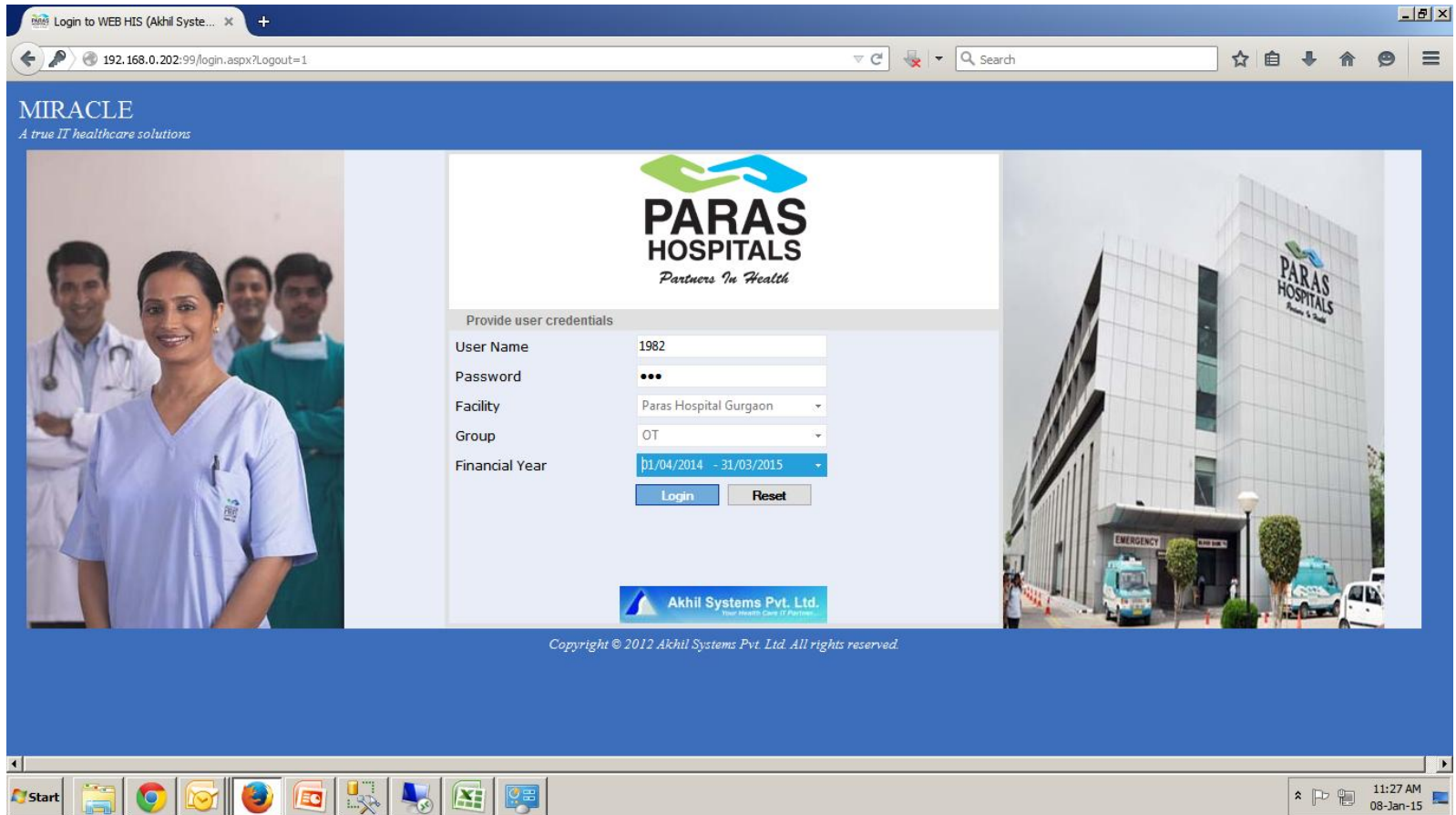
Login Reset

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Start

11:27 AM
08-Jan-15



Login to WEB HIS (Akhil Syste... x

192.168.0.202:99/login.aspx?Logout=1

MIRACLE
A true IT healthcare solutions



Partners In Health

Provide user credentials

User Name: 1982

Password: ...

Facility: Paras Hospital Gurgaon

Group: OT

Financial Year: 01/04/2014 - 31/03/2015

Login Reset



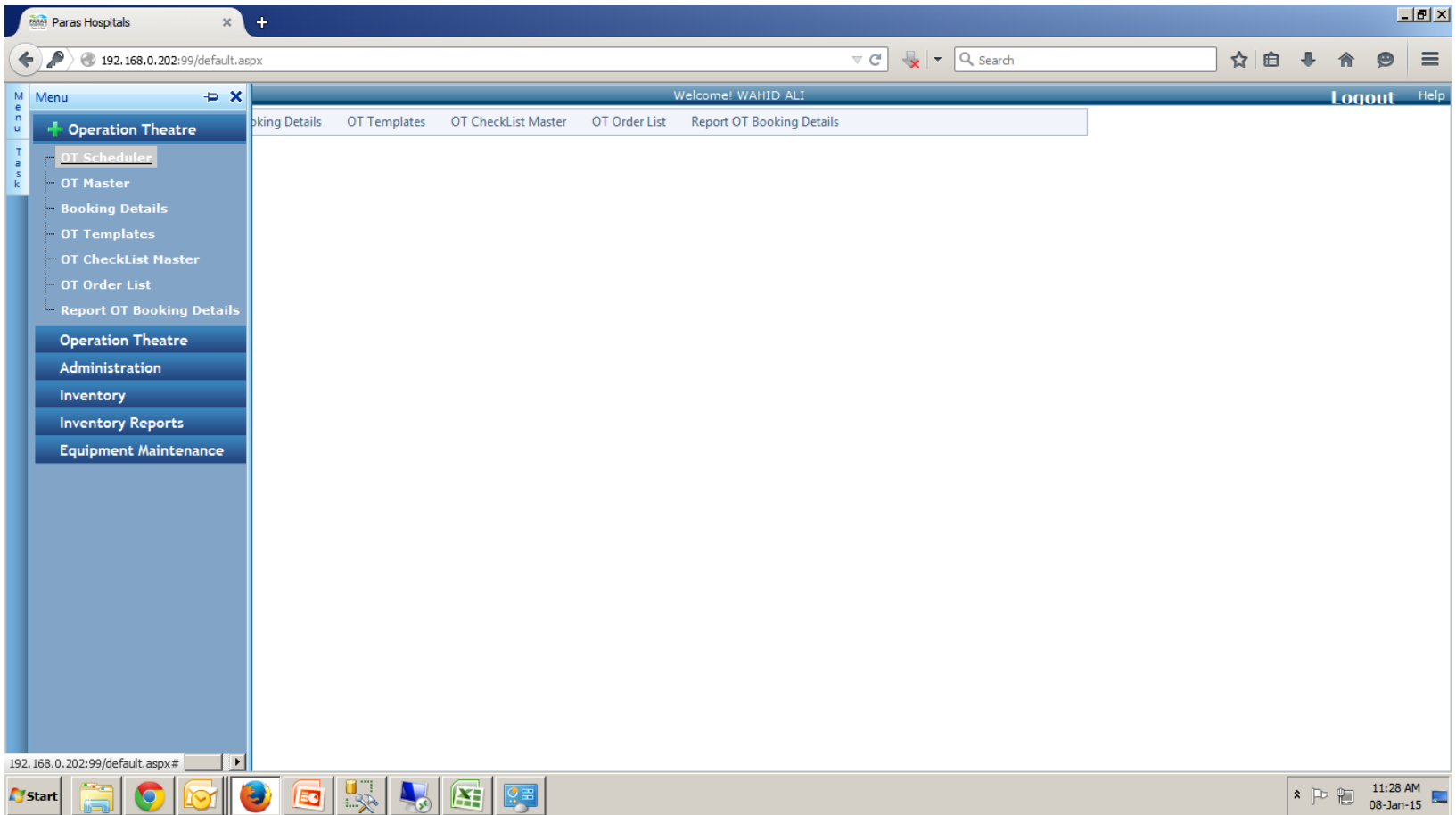
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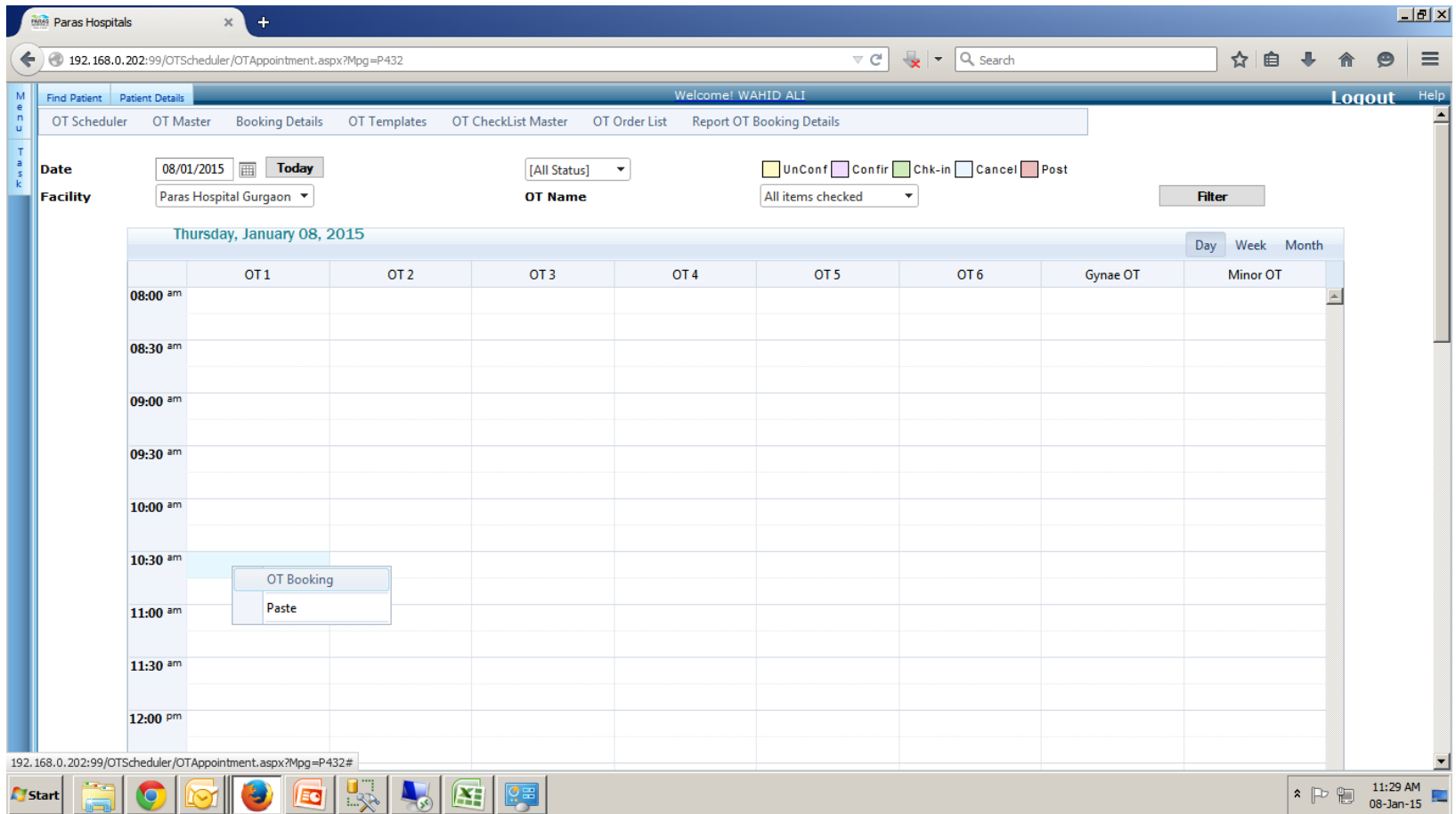
Start

11:27 AM
08-Jan-15

Open **OT MODULE** and select **OT SCHEDULING** option for book schedule



Click on TIME SLOT



The screenshot shows the Paras Hospitals OT Scheduler web application. The browser address bar displays the URL: 192.168.0.202:99/OTScheduler/OTAppointment.aspx?Mpg=P432. The application header includes a navigation menu with options like Find Patient, Patient Details, OT Scheduler, OT Master, Booking Details, OT Templates, OT CheckList Master, OT Order List, and Report OT Booking Details. The main content area shows a scheduling grid for Thursday, January 08, 2015. The grid has columns for OT 1 through OT 6, Gynae OT, and Minor OT. The rows represent time slots from 08:00 am to 12:00 pm. A context menu is visible over the 10:30 am slot in OT 1, with options for OT Booking and Paste. The status bar at the bottom shows the system time as 11:29 AM on 08-Jan-15.

Paras Hospitals

192.168.0.202:99/OTScheduler/OTAppointment.aspx?Mpg=P432

Welcome! WAHID ALI

Logout Help

Find Patient Patient Details

OT Scheduler OT Master Booking Details OT Templates OT CheckList Master OT Order List Report OT Booking Details

Date: 08/01/2015 Today [All Status] UnConf Confir Chk-in Cancel Post

Facility: Paras Hospital Gurgaon OT Name: All items checked Filter

Thursday, January 08, 2015 Day Week Month

	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am								
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am								
11:30 am								
12:00 pm								

OT Booking
Paste

192.168.0.202:99/OTScheduler/OTAppointment.aspx?Mpg=P432#

Start

11:29 AM
08-Jan-15



OT schedule booking page will be open

Akhil Systems Pvt. Ltd. 192.168.0.202:99/OTScheduler/OTAppointment.aspx?Mpg=P432

OT Booking Details

IP No New Close

Patient Details

Reg No First Name* Middle Name Last Name
DOB Age(Y-M-D) Gender*

Theater Details

Theater* OT 1
Date* 08/01/2015
Time* 10:30 AM To 10:45 AM

Surgeon Details

Surgeon* [Select]
Anesthetist* [Select]
Asst. Surgeon [Select]
Anaesthesia* [Select]
Remarks Add

Other Resources

☒ Surgery ☐ Package
Department All
Sub Department
Service* [Select] ☒ Main
Perfusionist [Select]
Scrub Nurse(s) [Select]
Floor Nurse(s) [Select]
OT Technician(s) [Select]
OT Equipment(s) [Select]

Surgery Added

For already admitted-IP SEARCH BOX and select ADMITTED PATIENT

Akhil Systems Pvt. Ltd. x http://192.16...employee.aspx x http://192.16...isc&Mpg=C634 x +

192.168.0.202:99/OTScheduler/OTAppointment.aspx?Mpg=P432

OT Booking Details

IP No 15/1 New Close

Patient Details Click to open search patient window

Reg No 1234 First Name* G Middle Name K Last Name JHA
 DOB 10/09/1964 Age(Y-M-D) 50 0 0 Gender* Male

Theater Details

Theater* OT 5
 Date* 08/01/2015
 Time* 9:30 AM To 9:45 AM

Surgeon Details

Surgeon* [Select]
 Anesthetist* [Select]
 Asst. Surgeon [Select]
 Anaesthesia* [Select]
 Remarks [Text] Add

Other Resources

Department All
 Sub Department
 Service* [Select] ☒ Main

Perfusionist [Select]
 Scrub Nurse(s) [Select]
 Floor Nurse(s) [Select]
 OT Technician(s) [Select]
 OT Equipment(s) [Select]

Surgery Added

Start 12:54 PM 08-Jan-15



Booking detail show on OT schedule in **YELLOW COLOR** with Patient Detail

Akhil Systems Pvt. Ltd. 192.168.0.202:99/OTSchedular/OTAppointment.aspx?Mpg=P432

Welcome! DEEPAK KUMAR VERMA Logout Help

Find Patient Patient Details OT Scheduler OT Master Booking Details OT Templates OT CheckList Master OT Order List Report OT Booking Details

Date: 09/01/2015 Today [All Status] UnConf Confir Chk-in Cancel Post
 Facility: Paras Hospital Gurgaon OT Name: All items checked Filter

Friday, January 09, 2015 Day Week Month

	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am								
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am	Himanshu Barai Acc# 300211 10:45AM-12:00PM If any							
11:30 am								
12:00 pm								

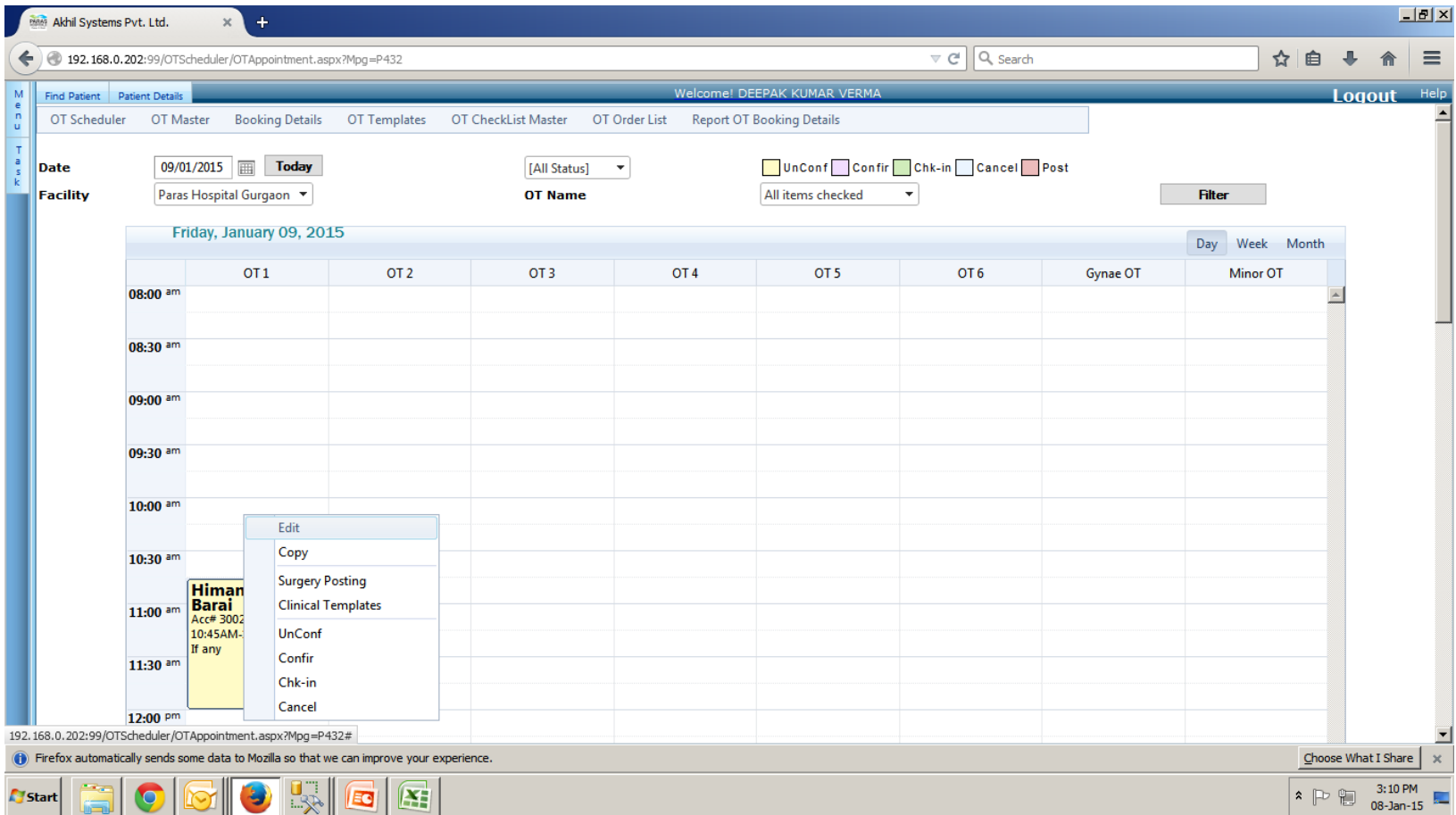
Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share

Start Firefox Google Mail Calendar Word Excel

3:08 PM 08-Jan-15



For edit -right click on booked schedule and select **EDIT** option

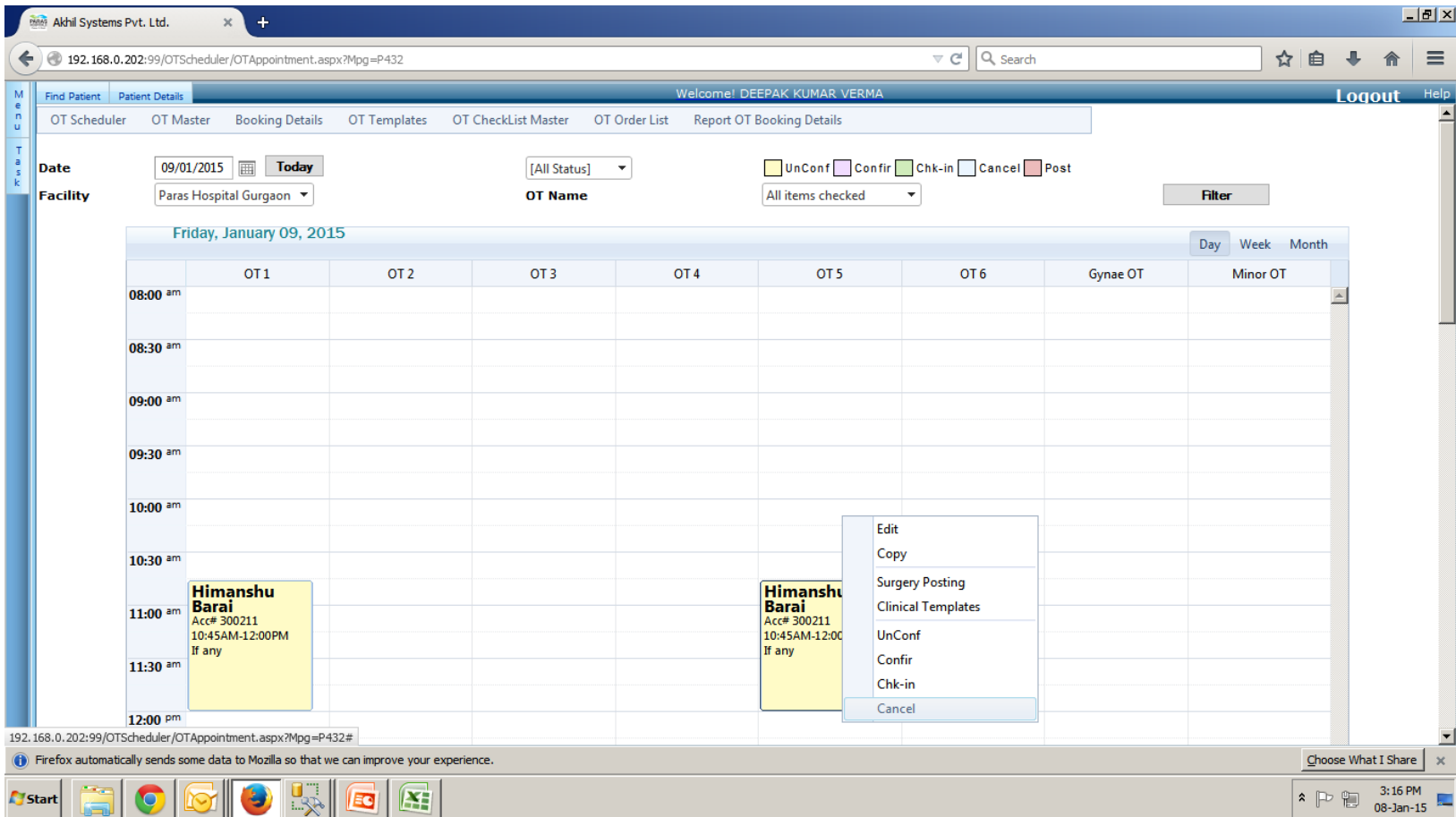


The screenshot displays the 'OT Scheduler' application interface. The top navigation bar includes 'Find Patient', 'Patient Details', and a 'Welcome! DEEPAK KUMAR VERMA' message. The main content area shows a calendar for 'Friday, January 09, 2015'. A right-click context menu is open over a booked appointment at 10:45 AM, listing options: Edit, Copy, Surgery Posting, Clinical Templates, UnConf, Confir, Chk-in, and Cancel. The appointment details are: Himan Barai, Acc# 3002, 10:45AM-11:00AM, If any.

OT Scheduler Interface Details:

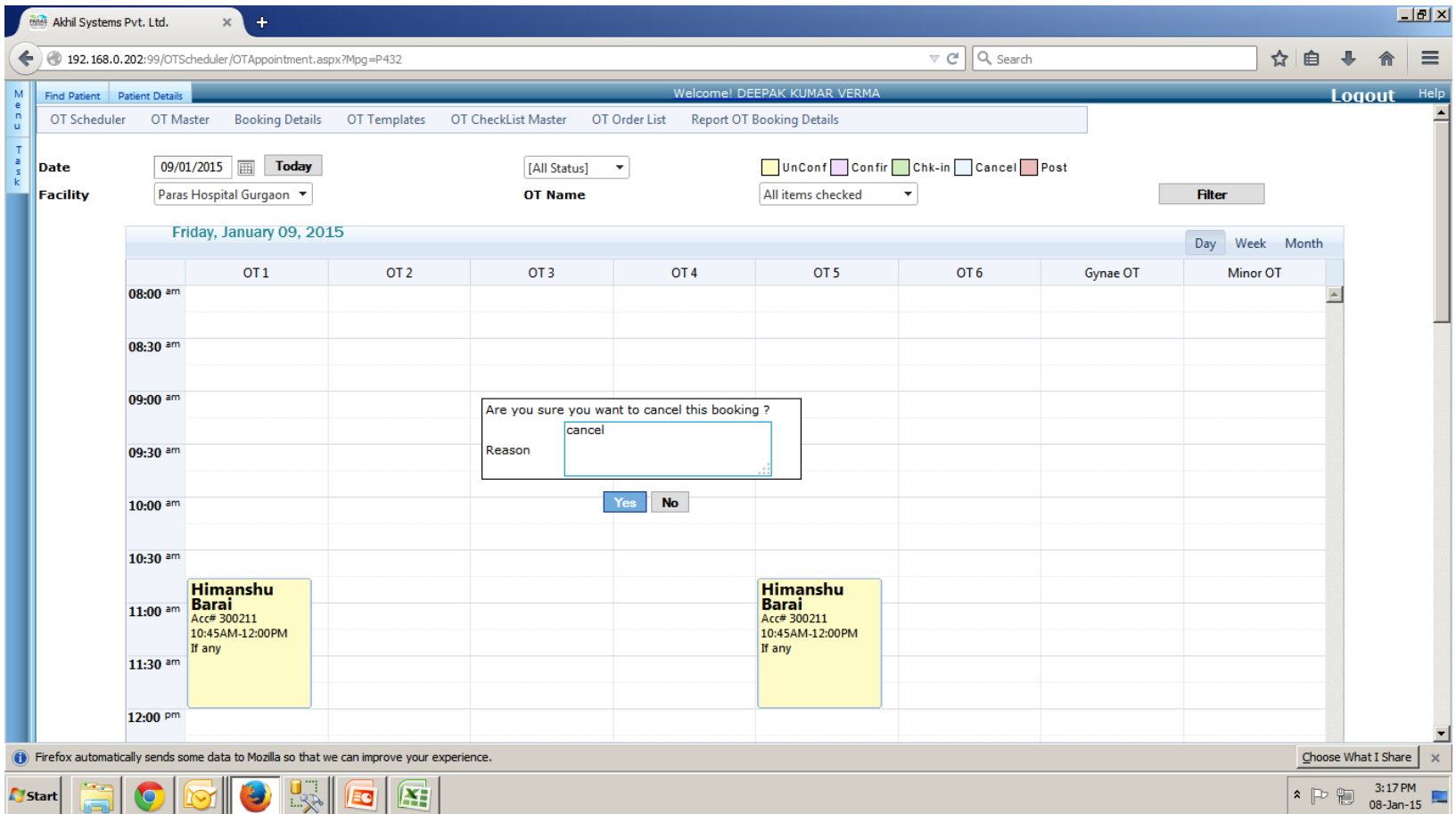
- Navigation Bar:** Find Patient, Patient Details, Welcome! DEEPAK KUMAR VERMA, Logout, Help.
- Sub-Menu:** OT Scheduler, OT Master, Booking Details, OT Templates, OT CheckList Master, OT Order List, Report OT Booking Details.
- Filters:**
 - Date: 09/01/2015 (Today)
 - Facility: Paras Hospital Gurgaon
 - OT Name: [All Status]
 - Status Legend: UnConf (Yellow), Confir (Purple), Chk-in (Green), Cancel (Blue), Post (Red)
 - OT Name Filter: All items checked
- Calendar View:**
 - Day: Friday, January 09, 2015
 - Columns: OT 1, OT 2, OT 3, OT 4, OT 5, OT 6, Gynae OT, Minor OT
 - Rows: 08:00 am, 08:30 am, 09:00 am, 09:30 am, 10:00 am, 10:30 am, 11:00 am, 11:30 am, 12:00 pm
- Appointment Details (Right-click context menu):**
 - Name: Himan Barai
 - Acc#: 3002
 - Time: 10:45AM-11:00AM
 - Note: If any
 - Options: Edit, Copy, Surgery Posting, Clinical Templates, UnConf, Confir, Chk-in, Cancel

For cancel booking schedule, select **CANCEL**



The screenshot displays the 'OT Scheduler' application interface. The top navigation bar includes links for 'Find Patient', 'Patient Details', 'OT Scheduler', 'OT Master', 'Booking Details', 'OT Templates', 'OT CheckList Master', 'OT Order List', and 'Report OT Booking Details'. The user is logged in as 'DEEPAK KUMAR VERMA'. The interface shows a date filter set to '09/01/2015' and a facility filter set to 'Paras Hospital Gurgaon'. The main area displays a booking schedule for 'Friday, January 09, 2015'. A context menu is open over a booking for 'Himanshu Barai' (Acc# 300211) at 10:45AM-12:00PM, with the 'Cancel' option highlighted. The context menu options are: Edit, Copy, Surgery Posting, Clinical Templates, UnConf, Confir, Chk-in, and Cancel. The bottom status bar shows the time as 3:16 PM on 08-Jan-15.

Give REASON for cancel booked schedule



The screenshot shows a web browser window displaying the 'OT Scheduler' application. The user is logged in as DEEPAK KUMAR VERMA. The interface includes a navigation menu with options like 'Find Patient', 'Patient Details', 'OT Scheduler', 'OT Master', 'Booking Details', 'OT Templates', 'OT CheckList Master', 'OT Order List', and 'Report OT Booking Details'. The main area shows a calendar for Friday, January 09, 2015, with a grid of OT slots (OT 1 to OT 6, Gynae OT, Minor OT) and time slots (08:00 am to 12:00 pm). Two bookings for 'Himanshu Barai' are visible at 11:00 am and 11:30 am. A confirmation dialog box is open, asking 'Are you sure you want to cancel this booking?' with a 'Reason' field containing the text 'cancel' and 'Yes'/'No' buttons.

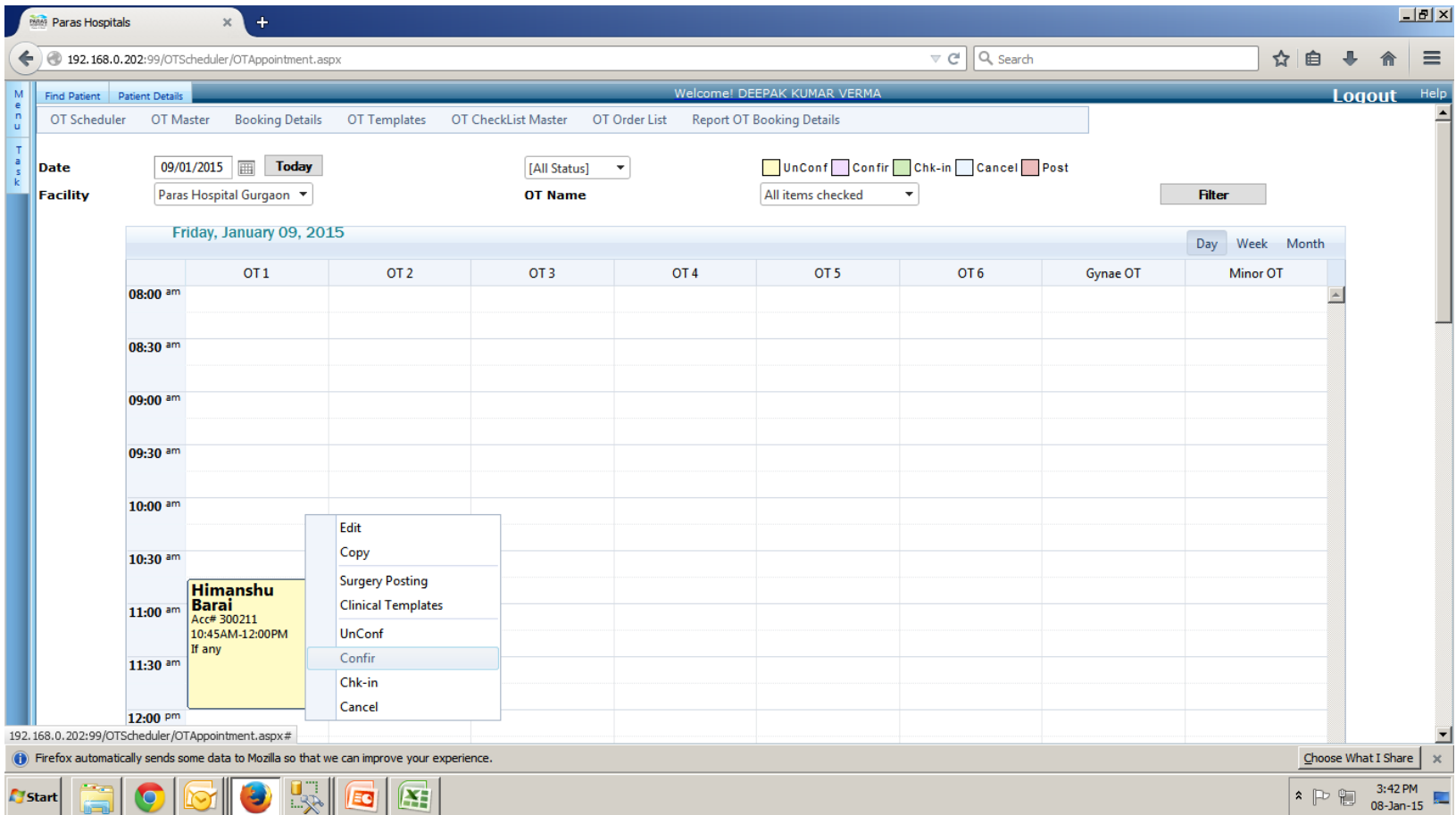
Firefox automatically sends some data to Mozilla so that we can improve your experience.

Choose What I Share

3:17 PM
08-Jan-15



If case is confirm then right click and select **CONFIRM** option



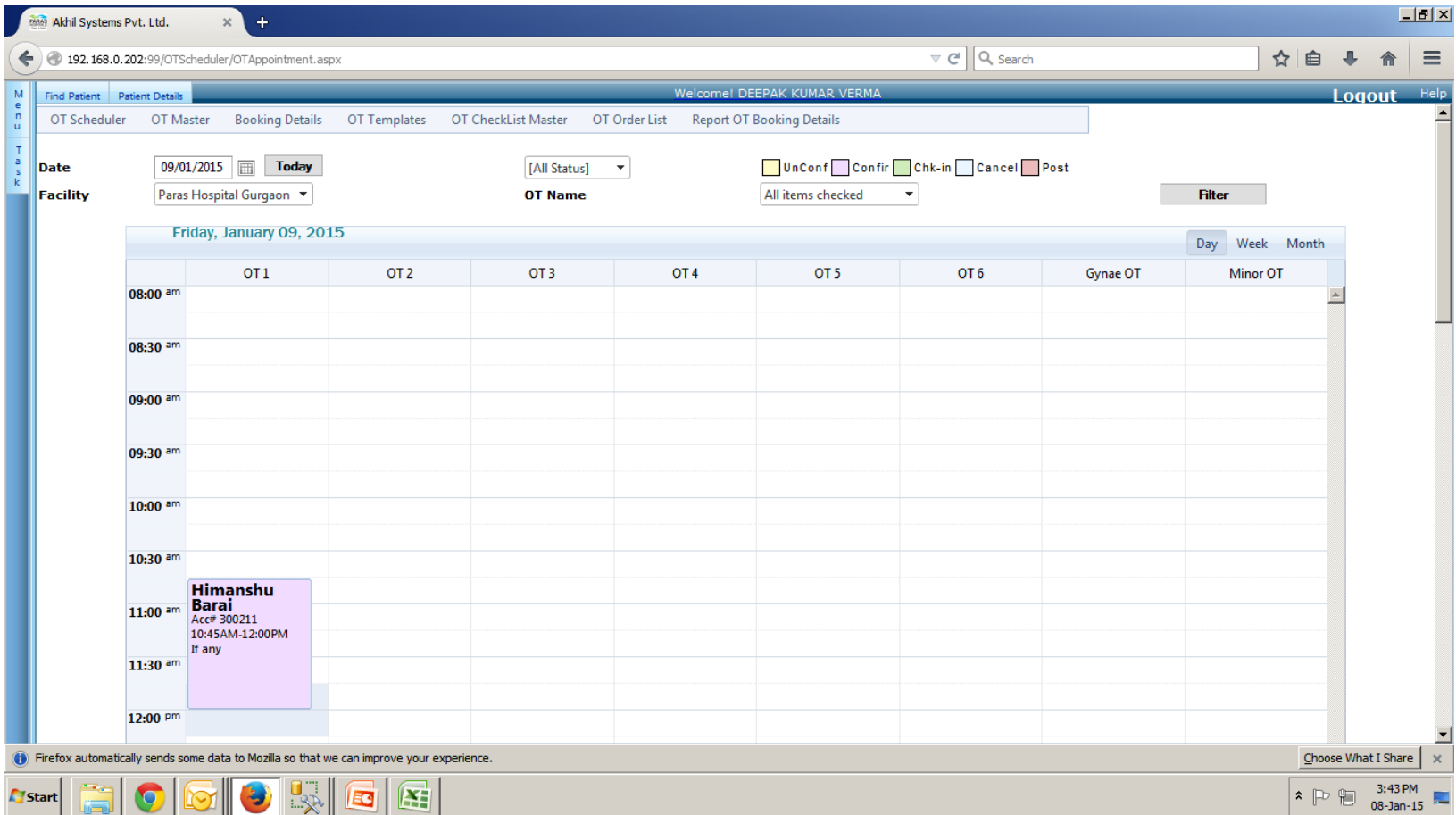
The screenshot displays the Parash Hospitals OT Scheduler interface. The top navigation bar includes links for Find Patient, Patient Details, OT Scheduler, OT Master, Booking Details, OT Templates, OT CheckList Master, OT Order List, and Report OT Booking Details. The user is logged in as DEEPAK KUMAR VERMA.

The main interface shows a calendar for Friday, January 09, 2015. The time slots range from 08:00 am to 12:00 pm. The OTs are categorized into OT 1 through OT 6, Gynae OT, and Minor OT. A patient named Himanshu Barai (Acc# 300211) is scheduled for a surgery from 10:45 AM to 12:00 PM. A right-click context menu is open over the patient's booking, showing options: Edit, Copy, Surgery Posting, Clinical Templates, UnConf, **Confir** (highlighted), Chk-in, and Cancel.

Legend: UnConf (Yellow), Confir (Purple), Chk-in (Green), Cancel (Blue), Post (Red).

Bottom status bar: 192.168.0.202:99/OTSchedular/OTAppointment.aspx#

After confirm color will be Pink



OT Scheduler | Patient Details | Welcome! DEEPAK KUMAR VERMA | Logout | Help

OT Scheduler | OT Master | Booking Details | OT Templates | OT CheckList Master | OT Order List | Report OT Booking Details

Date: 09/01/2015 | **Today** | **[All Status]** | **UnConf** **Confir** **Chk-in** **Cancel** **Post**

Facility: Paras Hospital Gurgaon | **OT Name:** All items checked | **Filter**

Friday, January 09, 2015 | Day | Week | Month

	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am								
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am	Himanshu Barai Acc# 300211 10:45AM-12:00PM If any							
11:30 am								
12:00 pm								

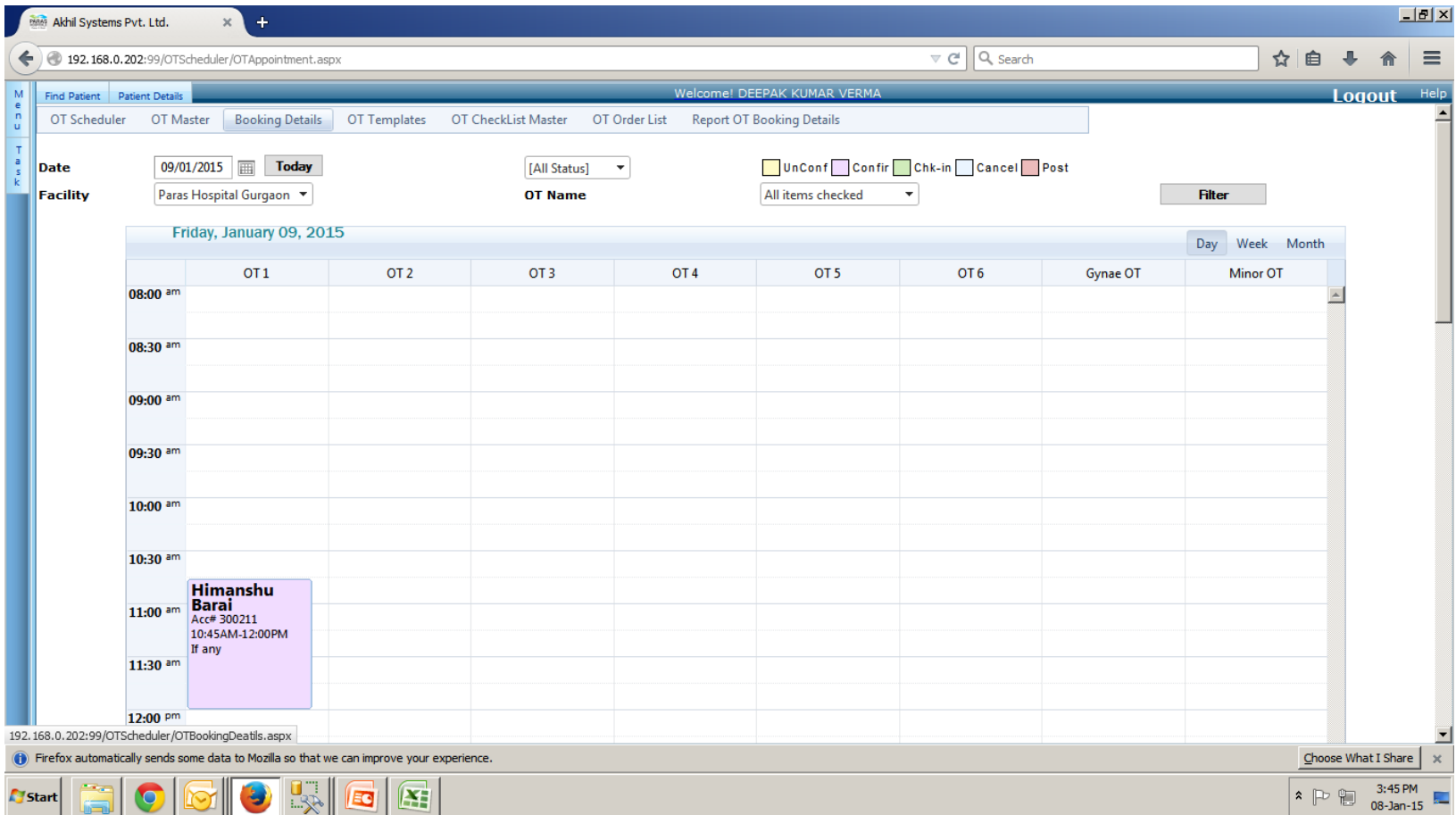
Firefox automatically sends some data to Mozilla so that we can improve your experience. | Choose What I Share

Start | Firefox | Google Chrome | Mail | Internet Explorer | Microsoft Word | Microsoft Excel

3:43 PM 08-Jan-15



Now select **BOOKING DETAIL** option for PAC clearance



The screenshot shows a web browser window displaying the 'OT Scheduler/OT Appointment' application. The browser address bar shows '192.168.0.202:99/OTSchedul...'. The application interface includes a navigation menu on the left with options like 'Find Patient', 'Patient Details', 'OT Scheduler', 'OT Master', 'Booking Details', 'OT Templates', 'OT CheckList Master', 'OT Order List', and 'Report OT Booking Details'. The 'Booking Details' tab is selected.

At the top, there is a welcome message: 'Welcome! DEEPAK KUMAR VERMA'. Below this, there are search and filter options. The 'Date' is set to '09/01/2015' and 'Today'. The 'Facility' is 'Paras Hospital Gurgaon'. The 'OT Name' is 'All items checked'. There are also status filters: 'UnConf', 'Confir', 'Chk-in', 'Cancel', and 'Post'.

The main display area shows a calendar for 'Friday, January 09, 2015'. The calendar has columns for 'OT 1', 'OT 2', 'OT 3', 'OT 4', 'OT 5', 'OT 6', 'Gynae OT', and 'Minor OT'. The rows represent time slots from '08:00 am' to '12:00 pm'. A booking for 'Himanshu Barai' is visible in the 11:00 am slot of OT 1. The booking details are: 'Acc# 300211', '10:45AM-12:00PM', and 'If any'.

The bottom of the screen shows the Windows taskbar with the Start button and several application icons. The system clock indicates '3:45 PM' on '08-Jan-15'.



SELECT PATIENT which wants to PAC clearance

Paras Hospitals

192.168.0.202:99/OTScheduler/OTBookingDeatils.aspx

Welcome! DEEPAK KUMAR VERMA

Logout Help

Find Patient Patient Details

OT Scheduler OT Master Booking Details OT Templates OT CheckList Master OT Order List Report OT Booking Details

OT Booking Details Tag Patient Clinical Details OT Check List Details

OT Name All Date 09/01/2015 Friday Filter PAC Clearance Remarks

☐ UnConf ☐ Confir ☐ Chk-in ☐ Cancel ☐ Post

	Booking No	Theatre Name	Start Time	End Time	Reg No	IP No	Patient Name	Admitting Doctor	Surgery	Booking Status	Order No	Order Date	Bill Clearance	PAC Clearance	Ward
Select	OT15/25	OT 1	10:45	12:00	300211	14/1185	Himanshu Barai	MANISH GUNJAN	ANTERIOR CHEST WALL REPAIR (Ma	UnConf					First Floor

javascript: __doPostBack('ctl00\$ContentPlaceHolder1\$gvDetails\$ctl00\$ctl04\$lnkSelect','')

Firefox automatically sends some data to Mozilla so that we can improve your experience.

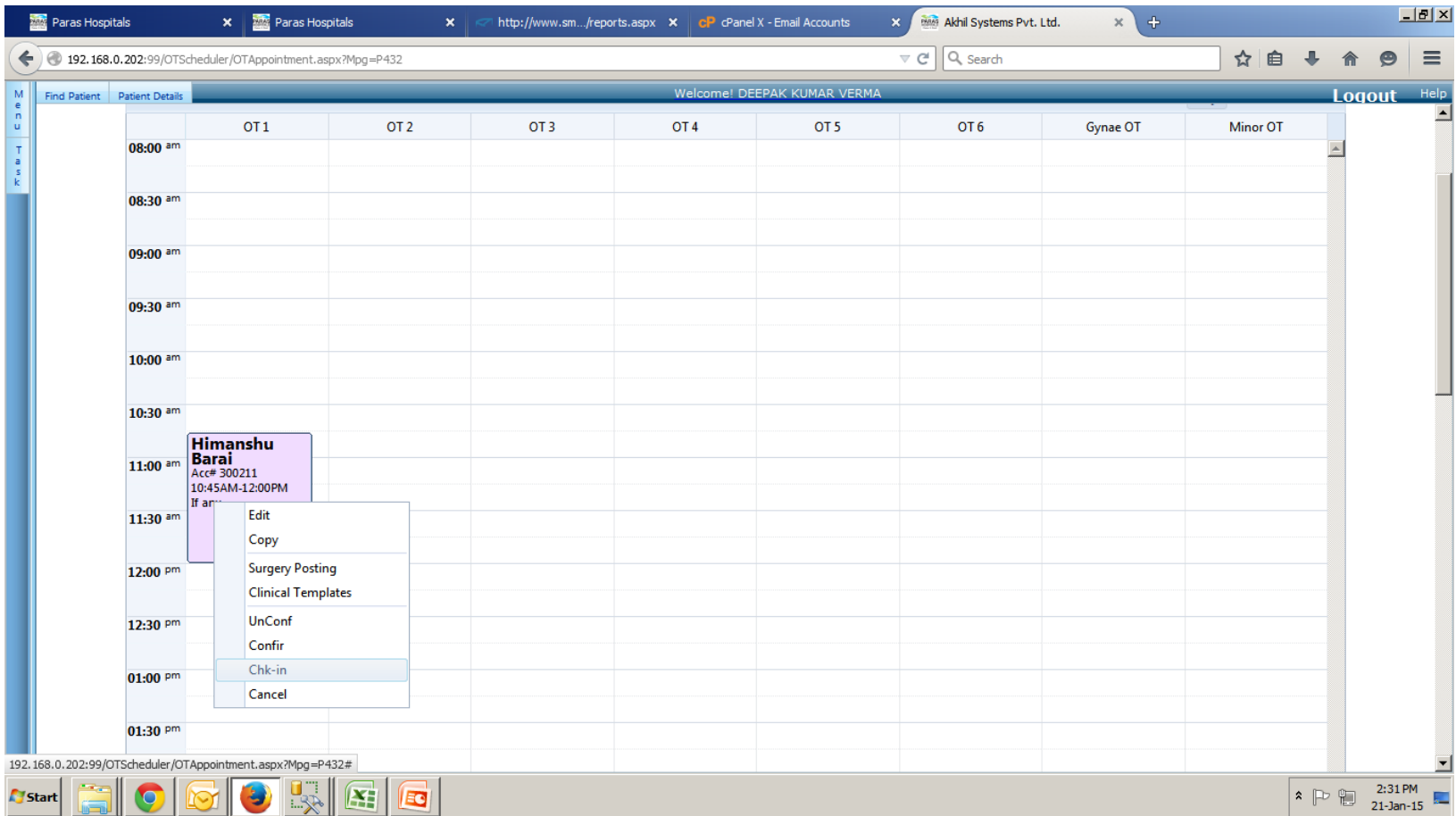
Choose What I Share

Start

3:37 PM 08-Jan-15



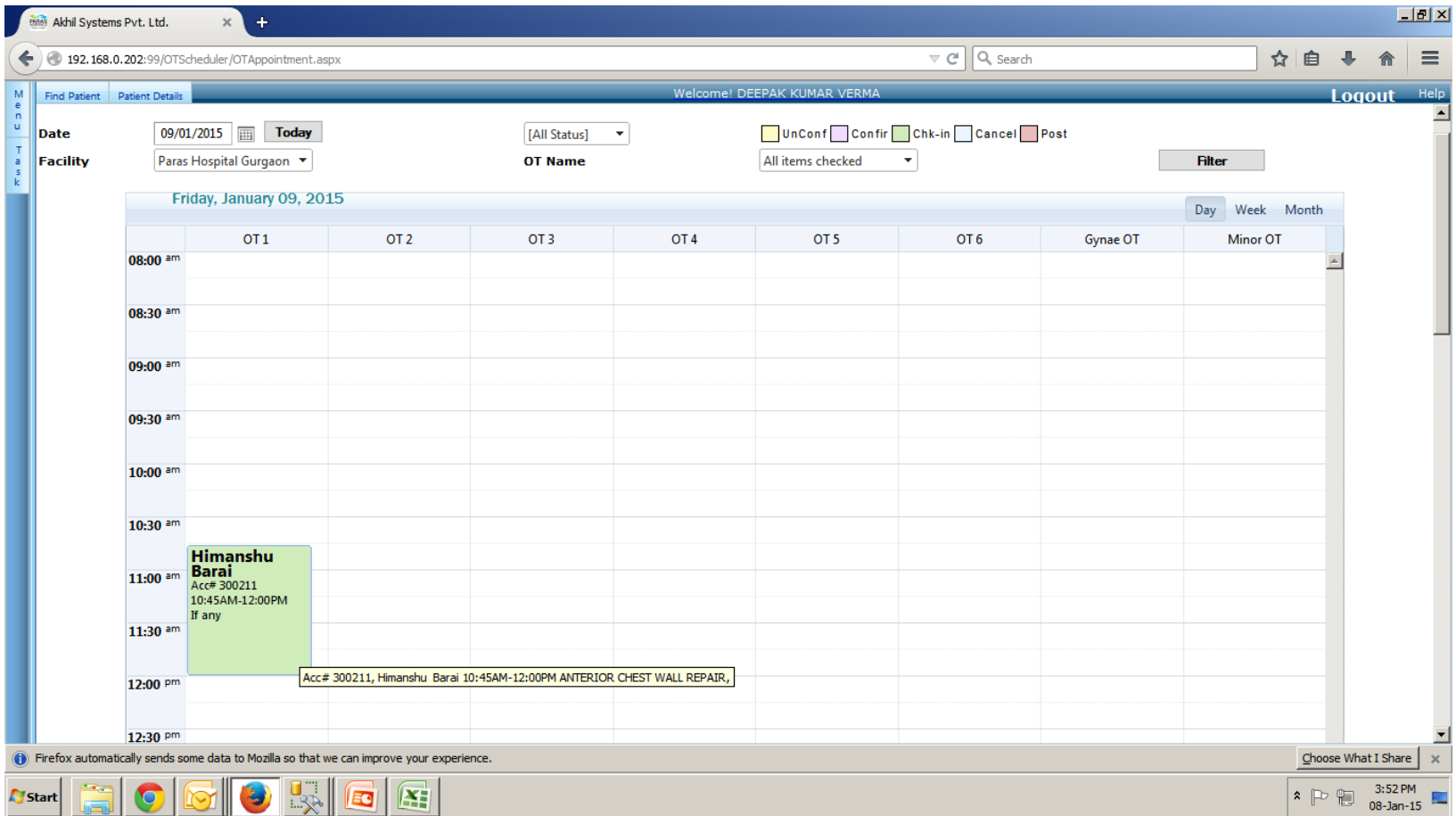
Select CHECK IN option for check in patient in OT



The screenshot displays the Paras Hospitals OT Scheduler web application. The browser window shows the URL `192.168.0.202:99/OTScheduler/OTAppointment.aspx?Mpg=P432`. The user is logged in as DEEPAK KUMAR VERMA. The interface features a table with columns for OTs (OT 1 to OT 6, Gynae OT, Minor OT) and rows for time slots from 08:00 am to 01:30 pm. An appointment for Himanshu Barai (Acc# 300211) is scheduled for 10:45 AM to 12:00 PM in OT 1. A context menu is open over this appointment, listing options: Edit, Copy, Surgery Posting, Clinical Templates, UnConf, Confir, Chk-in (highlighted), and Cancel. The Windows taskbar at the bottom shows the Start button and various application icons, with the system clock indicating 2:31 PM on 21-Jan-15.

	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am								
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am	Himanshu Barai Acc# 300211 10:45AM-12:00PM							
11:30 am								
12:00 pm								
12:30 pm								
01:00 pm								
01:30 pm								

After check in color will be GREEN



The screenshot shows a web application interface for scheduling Operating Theater (OT) appointments. The browser address bar shows the URL: 192.168.0.202:99/OTSchedular/OTAppointment.aspx. The user is logged in as DEEPAK KUMAR VERMA.

Find Patient / Patient Details

Date: 09/01/2015 (Today) [All Status] UnConf Confir Chk-in Cancel Post

Facility: Paras Hospital Gurgaon OT Name: All items checked [Filter]

Friday, January 09, 2015

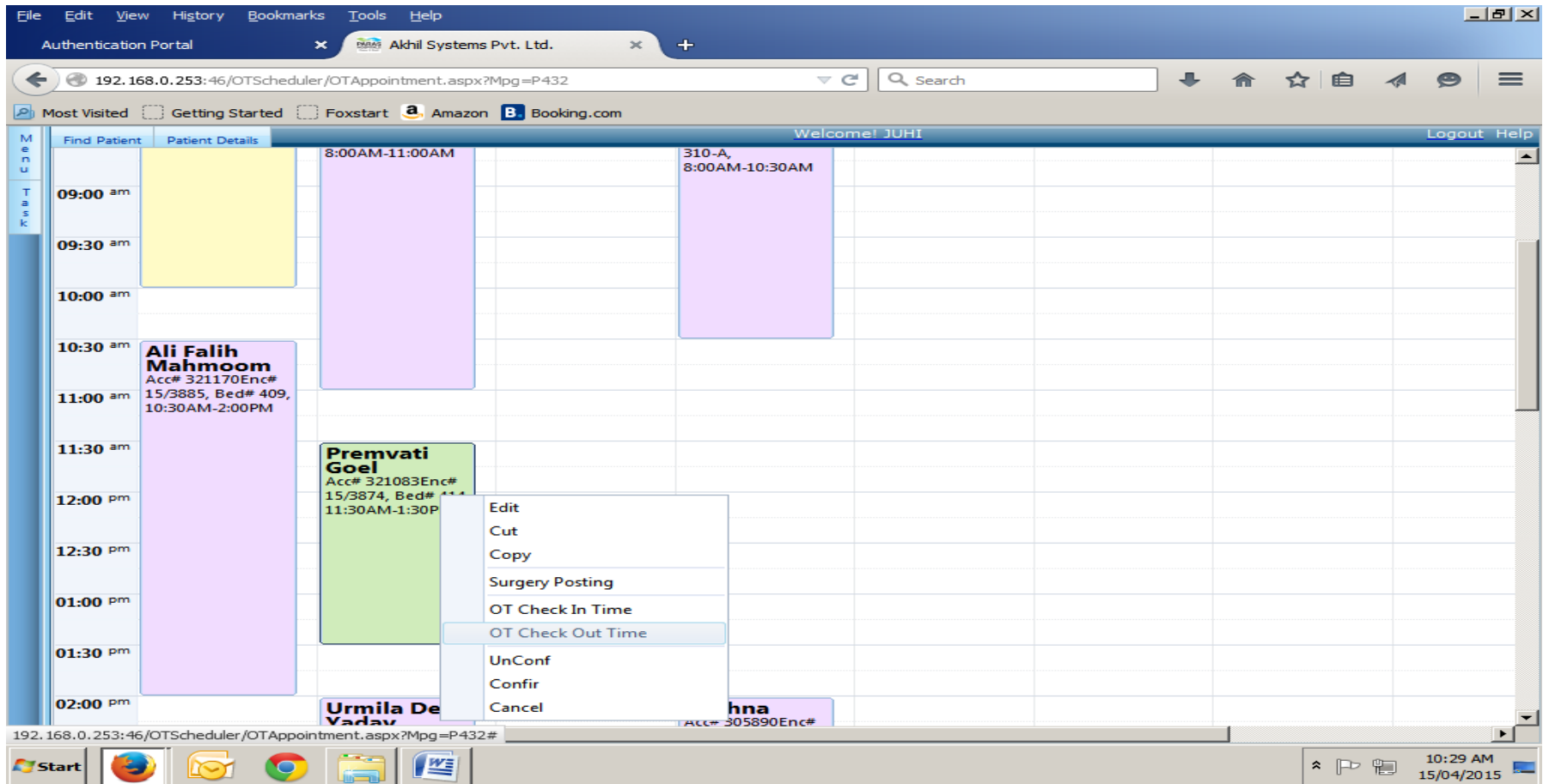
	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am								
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am	Himanshu Barai Acc# 300211 10:45AM-12:00PM If any							
11:30 am								
12:00 pm	Acc# 300211, Himanshu Barai 10:45AM-12:00PM ANTERIOR CHEST WALL REPAIR,							
12:30 pm								

Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share

3:52 PM 08-Jan-15



After OT patient will check out from OT by option **CHECK OUT**



The screenshot displays the 'Authentication Portal' for 'Akhil Systems Pvt. Ltd.' with the URL `192.168.0.253:46/OTScheduler/OTAppointment.aspx?Mpg=P432`. The interface includes a 'Find Patient' tab and a 'Patient Details' tab. A 'Welcome! JUHI' message is visible at the top right, along with 'Logout' and 'Help' links. The main area shows a grid of patient appointments. A context menu is open over the appointment for 'Premvati Goel' (Acc# 321083, Enc# 15/3874, Bed# 1130AM-1:30PM), listing options: Edit, Cut, Copy, Surgery Posting, OT Check In Time, OT Check Out Time (highlighted), UnConf, Confir, and Cancel. Other visible appointments include 'Ali Falih Mahmoom' (Acc# 321170, Enc# 15/3885, Bed# 409, 10:30AM-2:00PM) and 'Urmila De Yadav' (Acc# 305890, Enc# 15/3874, Bed# 1130AM-1:30PM). The Windows taskbar at the bottom shows the Start button, several application icons, and the system clock indicating 10:29 AM on 15/04/2015.



File Edit View History Bookmarks Tools Help

Authentication Portal x Akhil Systems Pvt. Ltd. x +

192.168.0.253:46/OTScheduler/OTAppointment.aspx?Mpg=P432

Most Visited Getting Started Foxstart Amazon Booking.com

Welcome! JUHI Logout Help

Find Patient Patient Details

OT Scheduler OT Master Booking Details OT Templates OT CheckList Master OT Order List Report OT Booking Details

Date: 14/04/2015 Today [All Status] UnConf Confir Chk-in Chk-out Cancel Post

Facility: Paras Hospitals Gurgaon OT Name: All items checked Filter

Tuesday, April 14, 2015

	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am	Mr. Mehra Acc# 0 8:00AM-10:00AM	Mehtab Singh Acc# 313761Enc# 15/3871, Bed# 443, 8:00AM-11:00AM		Sanjida Beghum Acc# 321171Enc# 15/3886, Bed#				
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am	Ali Falih Mahmoom Acc# 321170Enc# 15/3885, Bed# 409, 10:30AM-2:00PM							
11:30 am								
		Premvati Goel Acc# 321083Enc#						

OT Check Out Time
14/04/2015 14:00 Submit Close

Start

10:28 AM 15/04/2015



Select SURGERY POSTING for post surgery

Akhil Systems Pvt. Ltd. 192.168.0.202:99/OTScheduler/OTAppointment.aspx

Welcome! DEEPAK KUMAR VERMA Logout Help

Date: 09/01/2015 **Today** **[All Status]** **UnConf** **Confir** **Chk-in** **Cancel** **Post**

Facility: Paras Hospital Gurgaon **OT Name:** All items checked **Filter**

Friday, January 09, 2015 **Day** **Week** **Month**

	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am								
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am	Himanshu Barai Acc# 300211 10:45AM-12:00PM If any							
11:30 am								
12:00 pm								

192.168.0.202:99/OTScheduler/OTAppointment.aspx#

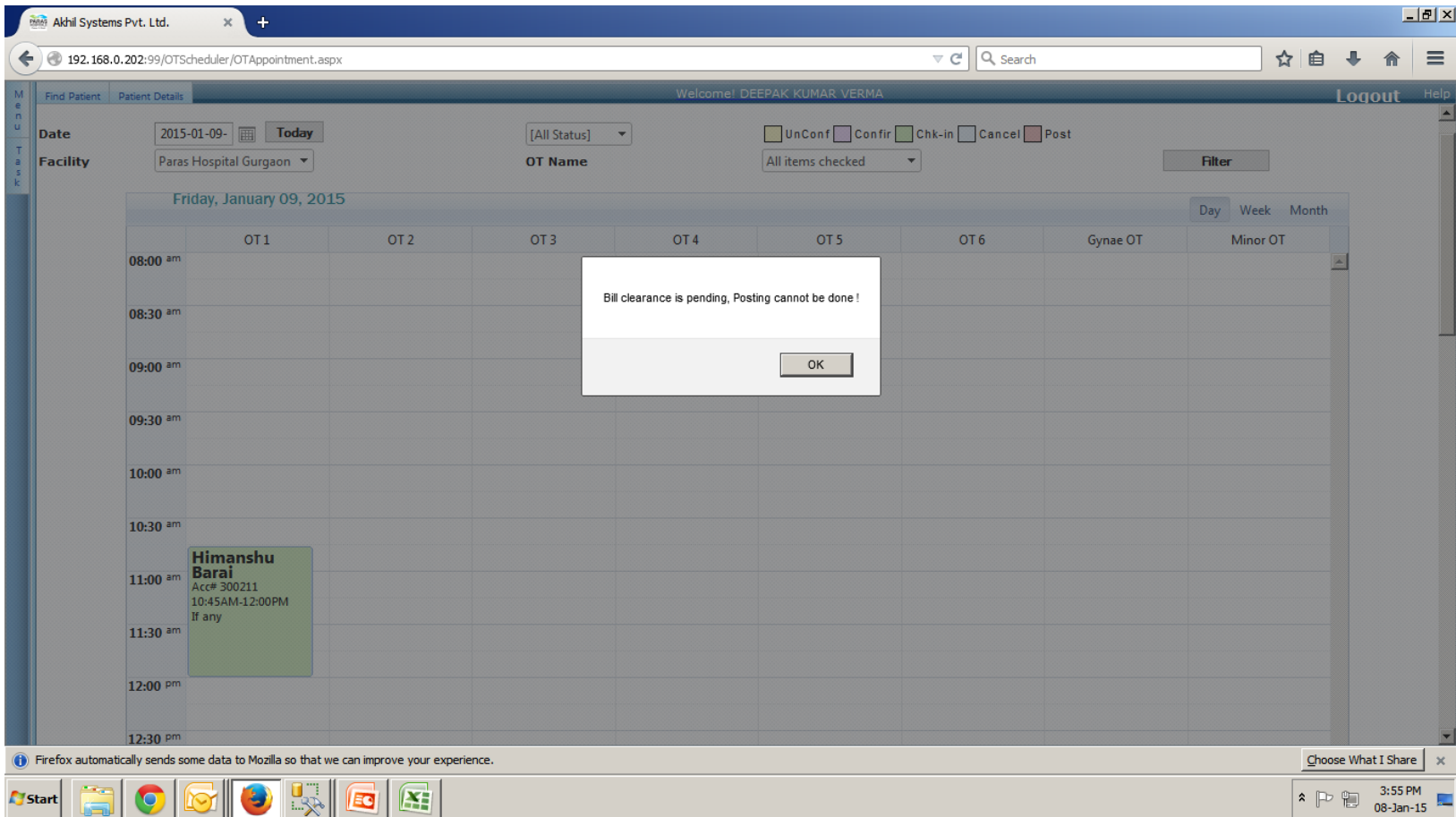
Firefox automatically sends some data to Mozilla so that we can improve your experience.

Choose What I Share

3:53 PM 08-Jan-15



If this **ERROR** shows in that means **Bill Clearance Is Pending**



The screenshot displays a web application interface for scheduling Operating Theatre (OT) appointments. The browser address bar shows the URL: 192.168.0.202:99/OTScheduler/OTAppointment.aspx. The application header includes a welcome message for DEEPAK KUMAR VERMA and a Logout link. The main interface features a date selector set to 2015-01-09 (Today) and a facility dropdown set to Paras Hospital Gurgaon. A status filter is set to 'All items checked'. The OT schedule is displayed in a grid format for Friday, January 09, 2015, with columns for OT 1 through OT 6, Gynae OT, and Minor OT. The time slots range from 08:00 am to 12:30 pm. A modal dialog box is displayed in the center of the screen with the message: "Bill clearance is pending, Posting cannot be done!". The dialog has an OK button. A patient card for Himanshu Barai (Acc# 300211) is visible in the OT 1 column at 11:00 am, with a time range of 10:45AM-12:00PM. The bottom of the screen shows the Windows taskbar with the Start button and various application icons, including Firefox, Google Chrome, and Microsoft Excel. The system clock indicates 3:55 PM on 08-Jan-15.

Akhil Systems Pvt. Ltd. 192.168.0.202:99/OTScheduler/OTAppointment.aspx?Mpg=P432

Surgery Order [New] [Save] [Close]

Patient: Himanshu Barai, Male/30 Yr DOB: 18/10/1984 Mobile No: 9582011220 IP No: 14/11856 Admission Date: 29/10/2014

Department: CTVS Sub Department: THORACIC SURGERY

Service: ANTERIOR CHEST WALL REPAIR Main Surgery Order Date: 08/01/2015 21:14 [Add]

SNo	Surgery	Main	Move	Remove
1	ANTERIOR CHEST WALL REPAIR	Yes		

O.T. Details

OT Room: OT 1

Start Time: 01/09/2015 10:45

End Time: 01/09/2015 12:00

OT Equipments: [Select]

Add Resource(s): [Select]

Assistant Surgeon: [Add]

Anaesthesia Details

Anaesthesia: 349 OT GASES

Start Time: 01/09/2015 10:45

End Time: 01/09/2015 12:00

Billing Category: CCU CCU

[Calculate Charges]

SNo	Surgery	Resource Type	Resource Name	Service Charge	Charge%	Net Charge	Disc%	Disc Amt	Patient Amt	Payer Amt
1	ANTERIOR CHEST WALL REPAIR	Surgeon	ADHISWAR SHARMA	30150.00	100.00	30150.00	10.00	3015.00	0.00	27135.00
2	ANTERIOR CHEST WALL REPAIR	Assistant Surgeon	ANUJ DOGRA CC	15075.00	50.00	15075.00	0.00	0.00	0.00	15075.00
3	ANTERIOR CHEST WALL REPAIR	Anesthetist	UNIT1 (ANAEHSTHESIA)	9045.00	30.00	9045.00	0.00	0.00	0.00	9045.00
4	OT CHARGES			21105.00	70.00	21105.00	10.00	2111.00	0.00	18995.00
5	OT GASES			3015.00	10.00	3015.00	10.00	302.00	0.00	2714.00

Firefox automatically sends some data to Mozilla so that we can improve your experience. [Choose What I Share]

Start [Icons] 4:37 PM 08-Jan-15



Akhil Systems Pvt. Ltd. 192.168.0.202:99/OTSchedular/OTAppointment.aspx?Mpg=P432

Welcome! DEEPAK KUMAR VERMA Logout Help

Find Patient Patient Details OT Scheduler OT Master Booking Details OT Templates OT CheckList Master OT Order List Report OT Booking Details

Date: 09/01/2015 Today [All Status] UnConf Confir Chk-in Cancel Post
 Facility: Paras Hospital Gurgaon OT Name: All items checked Filter

Friday, January 09, 2015 Day Week Month

	OT 1	OT 2	OT 3	OT 4	OT 5	OT 6	Gynae OT	Minor OT
08:00 am								
08:30 am								
09:00 am								
09:30 am								
10:00 am								
10:30 am								
11:00 am	Himanshu Barai Acc# 300211 10:45AM-12:00PM If any							
11:30 am								
12:00 pm								

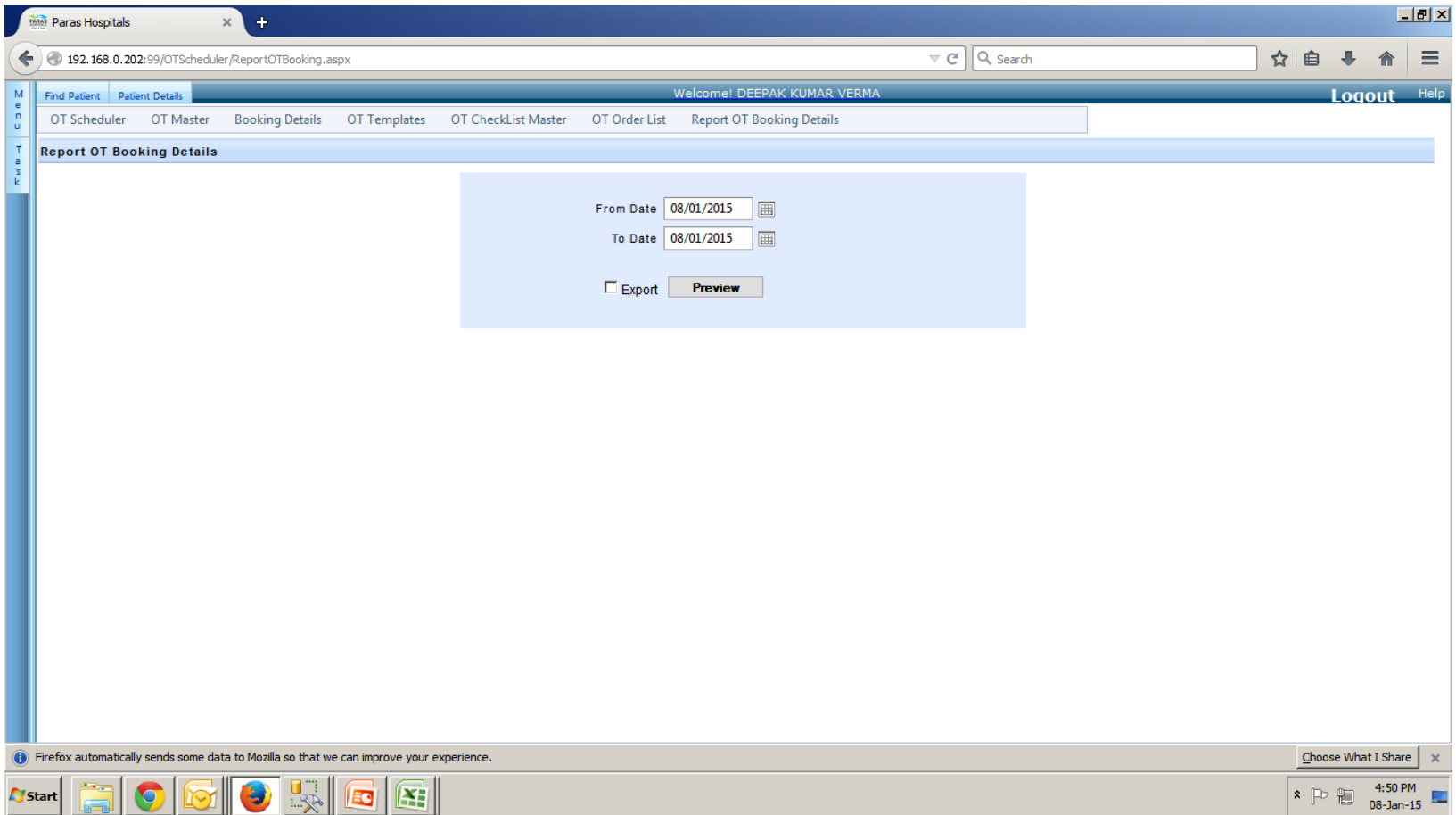
Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share

Start Firefox Google Mail Outlook Word Excel

4:41 PM 08-Jan-15



We can see report for OT booking by click on **REPORT OT BOOKING DETAIL**



The screenshot displays a web browser window with the address bar showing `192.168.0.202:99/OTScheduler/ReportOTBooking.aspx`. The application interface includes a top navigation bar with the following links: [Find Patient](#), [Patient Details](#), [OT Scheduler](#), [OT Master](#), [Booking Details](#), [OT Templates](#), [OT CheckList Master](#), [OT Order List](#), and [Report OT Booking Details](#). The [Report OT Booking Details](#) link is currently selected. Below the navigation bar, the page title is **Report OT Booking Details**. The main content area contains a form with the following fields and controls:

- From Date:** A text box containing `08/01/2015` with a calendar icon to its right.
- To Date:** A text box containing `08/01/2015` with a calendar icon to its right.
- Export:** A checkbox followed by the text **Export**.
- Preview:** A button labeled **Preview**.

The bottom of the browser window shows a status bar with the message: "Firefox automatically sends some data to Mozilla so that we can improve your experience." The taskbar at the bottom of the screen displays the Start button and several application icons, including Firefox, Google Chrome, and Microsoft Excel. The system clock in the bottom right corner shows the time as 4:50 PM on 08-Jan-15.

http://192.168...TBooking.aspx

192.168.0.202:99/OTScheduler/ReportOTBooking.aspx

Page: 1 of 1

Automatic Zoom

Paras Hospital Surgeon
C1, Gurgaon, Phase-4, Sector-43
TEL : 0124-4686666 FAX : 0124-4686672

OT Booking Details For Period 2015/01/09 - 2015/01/09

SNo	OT Name	Surgery Dt	Time	IP No	Patient	Age/Sex	Diagnosis	Surgery	Surgeon	Anesthetist	Company
1	OT 1	09/01/2015	10:45 - 12:00	14/11856	Himanshu Batra	30 Y/M	Any	ANTERIOR CHEST WALL REPAIR (Ma	Dr. ADHISWAR SHARMA Dr. ANUJ SOGRIA CC	Dr. UNIT1 (ANAESTHESIA)	BAJAJ ALLIANZ GIC LTD.(CREDIT)

Dr P.S Roy
Director Anesthesia

Printed By : drem a

Print Date & Time : 08/01/2015 21:33 PM

Firefox automatically sends some data to Mozilla so that we can improve your experience.

Choose What I Share

Start

4:53 PM
08-Jan-15



- After implementing the software in hospital Operation Theatre system, they were made to enter all details related to patient in this software. While entering data they encountered certain discrepancies in the software.
- The work flow and pattern of recording the data were not found similar to the software provided.
- Hence external agency made changes step by step from the back-end to make the system efficient. The changes, points to be added or modified were recorded in **Issue Tracker**. Issue Tracker Screen shown below:

paras Issue Tracker.xls [Compatibility Mode] - Microsoft Excel

S. NO	Module	Page Name	Point	Beg / End	Observed by	Status	Priority	Date	HANDOVER & Checked by after DONE POINT	Remark	CURRENT STATUS			
15	Operation Theatre	OT SCHEDULAR	Should show IP No. and Bed no of Pt. in booked schedule.	ENHH	IT	Closed	Medium	10/Jan/15			CLOSED			
16	Operation Theatre	OT SCHEDULAR	Require checkout option for check out pt. from O.T.	ENHH	IT	PENDING	Medium	10/Jan/15		after OT checkout is needed.	OPEN			
17	Operation Theatre	Operation Theatre	Require O.T. summary report with all detail.	ENHH	IT	PENDING	Medium	10/Jan/15		Required format of the report.	OPEN			
18	Operation Theatre	Operation Theatre	OT Check list should POP UP BEFORE Check-In Option	ENHH	IT	PENDING	Medium	10/Jan/15		Required detailed requirement.	OPEN			
19	Operation Theatre	OT SCHEDULAR	Require Check list page at the time of Pt. Checkin in O.T.	ENHH	IT	In-Process	Medium	10/Jan/15		what is the use of checklist master?	OPEN			
86	operation theatre	booking details	investigations link up has to be done	ENHH	pravin sir	Closed	medium	14/02/2015			CLOSE			
87	operation theatre	booking details	clarify details option	ENHH	praveen	PENDING	medium	14/02/2015			OPEN			
88	operation theatre	OT SCHEDULAR	not able to close check list option during posting a surgery	ENHH	praveen	Closed	medium	25/02/2015			OPEN			
89	operation theatre	OT SCHEDULAR	cancelled patients entry should be stored in - Report OT Book Details	ENHH	praveen	PENDING	medium	25/02/2015			OPEN			
90	operation theatre	OT SCHEDULAR	Post surgeries entries can be edited , but it provides leverage to employee to change settings later on	ENHH	praveen	PENDING	medium	26/02/2015			OPEN			
91	operation theatre	OT SCHEDULAR	OT Check list should pop up before Check-In Option	ENHH	praveen	PENDING	medium	03/03/2015			OPEN			
92	operation theatre	OT SCHEDULAR	In OT Bookings , Other Resources fields should be mandatory	ENHH	praveen	PENDING	medium	03/03/2015			OPEN			
93	operation theatre	OT SCHEDULAR	PAC Clearance should pop up before Check-In Option	ENHH	praveen	PENDING	medium	03/03/2015			OPEN			
94	operation theatre	OT SCHEDULAR	after Surgery Posting is done , editing should not be possible . ONLY Add Option should work to add additional procedure done in OT.	ENHH	praveen	PENDING	medium	03/03/2015			OPEN			

Paras_Points BMD & maintenance OT Deptt.

Ready 60%

10:21 AM 02/04/2015



7. Ethical Considerations

- The Main Values to be observed: Confidentiality – entrusted private and linked data will be kept that way. b) Integrity – technical competence, openness, ethics and scientific soundness will be observed in all operations. c) Gender sensitivity, fairness and universal coverage will be ensured.
- Staff at agencies will need to be aware of all of the security features of the HMIS that they have chosen. They will also need to be aware of their responsibilities for keeping client information safe and confidential at the agency level
- Special security training can be provided to key agency staff or to all staff to ensure that they understand and adopt appropriate security protocols, issues of confidentiality, disclosure, and grievance procedures.
- For each of the training trainers and project managers should work together to develop a standard curriculum and review and revise it periodically. They will also need to develop training materials to hand out to participants. These materials should also be updated as needed.
- The project manger should try to gauge the effectiveness of the training by creating a training evaluation form with numeric scales.



Problems Faced and measures taken to solve them

- **Inter department communication** – While implementing software , there were many discrepancies in between departments as process flow followed was slightly different than basic software installed by external agency.
- Like every new implementation, there were problems like , the Operation theatre staff and billing department were not communicating properly , as all staff were not fully trained initially. Their communication barriers were removed and they were trained and asked by us to communicate telephonically to I.T. Department and billing department staff for easy clearance of balance in bills and get *O.T. clearance* on time.
- **Unavailability and delayed deployment of changes** by External Agency – External agency were delaying deployment of software errors and modifications. Their staff was only communicating via telephonic conversation and online access of our systems of our hospital system from their office. Issue Tracker sent with corrections to be done was most of the times delayed and their office remain closed during weekends while hospital was still operational on Saturdays.
- Time schedules were matched later on and agency staff was requested to appoint staff and make changes sent in Issue Tracker on time and weekly renewal of software were done.
- **Untrained staff** – Staff needed to be trained personally about data entry and report generation. Skilled staff is very essential to make system effective and efficient.
- The staff was trained and was supplied with User Manual to make system User-friendly. Early involvement of employees/staff leads higher level of user acceptance , and makes system more effective and efficient.



8.Recommendations

- HIS successful implementation requires two way approach i.e. both financial investment and management and changing software according to process flow, making software efficient and user-friendly.
- Evolutionary approach need to be taken to train staff in HIS. They should be part of software implementation from early stage. Employees need to be regularly updated about the software that is to be implemented and regular updates need to be taken from them to change software according to the need of department in hospital.
- Inter-department coordination: Billing department and Operation theatre staff should coordinate well to get bills cleared and patient admission a smooth process.
- System errors and failures in between need to be given priority and it should be solved on emergency basis , without delay.
- Supervision – Entries of the patient data made should be reviewed on regular basis and correct training is to be provided to new staff employed in the department.
- Regular report generation – Reports should be generated monthly or weekly basis to evaluate and check efficiency of system.



- All details regarding patients and hospital were **computerized**
- The staff was able to **record and retrieve data in less time**
- **Data analysis** of the records made easy
- The **issues raised** by department were **sorted** and all the changes were made
- The **system** was made **user friendly** and staff was trained to use system efficiently
- Various **reports** can now be generated easily



- A good level of acceptance and awareness towards the system is required in the hospital for its successful implementation. The hospital required HIS Phase 2 implementation in departments like- Blood bank, OT, CSSD, Linen and Laundry, MRD, EHR, Equipment maintenance, Housekeeping departments. . For this external agency provided basis set-up for software. Due to the discrepancies in software and pattern of record maintenance in the department, changes were made. It is very crucial to have a consideration to the resistance that is still occurred during early phase. Department raised issues while recording the data related to patient and report generation, and the changes to be made were recorded in Issue Tracker. The changes were made and implemented and staff was trained and was supplied with User Manual to make system User-friendly. Early involvement of employees/staff leads higher level of user acceptance. The factor of system design of user interface should not be overlooked as it is one of the factors that leads to successful of the system implementation Hence the data entry system helped to make workflow easy, effective and efficient.





Thank You