Variable Energy Cyclotron Centre
Department of Atomic Energy

Project Report of
VECC Guest House Management System

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Contents

1 ACKNOWLEDGEMENT

Working in the center for Guest house was interesting. We shortly to thank all those who devoted their energy, resources and time to the success of this project. The foremost ultimate thank you goes to my determined and ever encouraging mentor MR. VINEET KUMAR RAKESH and his assistant MS. CHANDREYI NATH. We are also thankful to all other faculty and staff member of our department for their kind co-operation and help. However, I can't forget the support that both my school administration and my family have granted me through this process.

Further on I want to thank the student and trainee in VECC who made this demanding time joyful but always efficient.

2 ABSTRACT

The "GUEST HOUSE" project has been designed keeping in mind both employee and guest. Employee working in VECC can simply send the booking request to Guest House Admin and Admin accordingly allocate room to the guest after seeing his/her preferences about the guest house type i.e, Silver Jubilee or Hostel and the Ac / Non Ac facility, and thereby rooms will be booked for a guest. The guests should be requisited by some of the VECC Employee then checking in part is handled in security part when the arrives.The task of maintaining the guest house rooms lies with the employee

3 INTRODUCTION

In the current era, the web applications which are used by the user for various rental purposes like room accommodations, paying guest services, food services, and other day-to-day activities are present in different applications with their respective modules.

We are stuck with technology when what we really want is just stuff that works with the current paradigm shift in technological field, there is an urgent need to embrace and appreciate the power of technology. Housing sector remains vigilant to face the challenges of change by employing a new strategy that facilitates easy management of rental houses. Hence there is need to develop a rental house management system that can simplify work for the rental managers so that all their work can be efficient and effective .It saves the time also .It is used to easily identify the room availability ,room details , Person living in the room in much less time than doing all the thing manually..

These modules are not only complicated but also discreet which make the whole task time-consuming and lethargic. In order to eradicate these problems, we need a solution such that the user is able to complete as well as modify his/her rental accommodations.

The study therefore aimed at developing an online rental system to enable customers book for whatever they need from wherever location they are before lodging into the hotel. The system is to allow for easy access and retrieval of information and reporting. With such a system in place will make the center more competitive.

4 SYSTEM ANALYSIS

4.1 PROBLEM DEFINITION

VECC Guest House, kolkata offers accommodation, meals, and other services for the guests of the internal employees and also outside VECC guests who will be recommended by some of the present employee of VECC. No outsiders can access the system because the use of the application is strictly restricted to VECC employees only by maintaining security features.

Huge hassles are faced by the employees to maintain the current manual booking and billing system . To come up with a solution a completely computerized automated management system is designed for the guest house which would incorporate the following :

1. Be friendlier to VEDA users and all the staffs.
2. Improve service and the maintainance of the guest house management system.
3. Increase the performance.
4. Reduce the operational costs of the system.

4.2 THE CURRENT MANNUAL SYSTEM

Currently the Guest House Staff manage property and tenants details on papers. Once customers finds a vacant house, they can request manager of the houses indicating the size of the house they would like rented to them. The property manager can email them back giving them all the details about the house they are requesting. The details include room ,houseoffice,Paying guest also.house rent management system used to avoid an the time consuming an the process.

VECC currently runs a manual booking system and therefore requires customers to only book for rooms or any other service by walking to the receptionist or calling them on phone or using a third party option. Any enquiry to be made demanding feedback must usually be forwarded to the hotel in person. Sometimes management is given false reports concerning the work flow of the hotel and employees also give falsified pricing information to customers from time to time.

From an employee's account, details of customers are hardly used in the workflow and that also, records are not properly kept; books used to keep records are disposed of when they get filled up.

Any data ,details of guest stayed in guest house can be made quickly available.But in the exisiting system the data can be made available after

hard work or may be the it got misplaced or any other issue.

Like for example billing system in Guest House till date use the cash register to tender cash and complete the financial transactions within the store. Here the problem is that a cash register can aid only with the in-store requirements. The back office functionalities like stock and purchase management, payments and receivables, accounting, everyday store difficulties and more cannot be managed with a cash register. It is a smart and modern billing solution that helps in solving all of these problems at one go.

4.3 THE PROPOSED SYSTEM

4.3.1 OBJECTIVES OF THE PROPOSED SYSTEM

- To enable online booking via the internet.
- To enable automated data entry methods.
- Ensure efficient and reliable communication within the guest house.
- Avoid data entry errors by use of input masks.
- Enable easy authorized modification of data.
- Enforce security measures to avoid unauthorized access to guest records.
- Enable fast and easy retrieval of guest records and data for fast reference activities.

4.3.2 DIFFERENT MODULES OF THE SYSTEM

There are 4 major users of this module.

1. **Admin:**
    - All the booking requests will be sent to the admin and admin will confirm or reject them according to the room availability within those requested dates.
    - If room is available then admin will allot room according to the specified requirement of the guest.
    - Admin can viewand manage the rooms,the room charge list, all the bookings as well as the guest archive data.
    - If something with higher priority takes place at the guest house then the admin has rights to cancel the bookings in those days and notification through mails will be sent to the requester.

2. **Requester:**
    - Any VEDA user can play the role of a requester.
    - He will be able to fill up a requisition form and send it to the head for approval. This will follow an employee hierarchy according to which this approval will be done.
    - If the request is approved then send it to the admin for booking.
    - He will receive a confirmation mail from the admin if the booking is confirmed.

- He will be able to cancel booking if required for any case.
- He will be able to view the bill details of the guests requisited by him.

3. **Security :**
    - After arrival of the guests, the security section will access the module and check their booking details. If their booking is there then they will issue a CEP and allow them to go to the guest house.
    - At the time of departure also they will check the status, if payment is done then they will take the CEP back and allow them to go.
    - They will be able to see all the booking details but cannot change anything except the status. They will make the status as CEP generated.

4. **Guest house:**
    - After going to the guest house, the guest house stuff will record the check in time.
    - If guest wants to change the room and if rooms are available then the guest house can change the room.
    - Bill calculation depending upon the room booked and expenditures and generation is also a part of this guest house. Here they will check if any room damage occurred or not. If yes, then charges will be taken accordingly.

4.3.3 SCOPE OF THE SYSTEM

The system will cover booking, accommodation, meals, and accounts details. To help the system smoothly carry out its intended purpose to meet the hotel management needs, the following tables will be used to store data:

1. **GH_REQUISITION :** contains the details of the employees who have raised a booking request.

2. **GH_GUEST :** contains all details of the coming guest for whom a booking request has been sent.

3. **GH_FAMILY :** contains the details of the family members associated with a particular guest.

4. **GH_ROOM :** contains the details of the rooms of both the guest houses of VECC i.e, Silver Jubilee, Hostel.

5. **GH_TARIFF :** contains the list of room cost for different guest category and room facility.

6. **GH_ROOM_TRANSACTION :** contains a list of rooms that hs been bokked for a duration against a guest.

7. **GH_GUEST_ARCHIVE :** contains a history data of guests for whom booking has been done currently and in past.

8. **GH_EXPENDITURE :** contains a expenditure list and its charges for guests who have stayed at VECC Guest House.

9. **GH_BILL :** contains a total bill amount and description for each guest

10. **GH_COMMENT :** contains comment of the employee who have approved a booking request of his subordinate.

4.4 STEPWISE PROTOCOL

The protocol of the project is described hereby :

Step 1. Any current employee of VEDA willing to request for guest house accommodation booking will fill up the requisition form online mentioning all the details of the coming guest.

The guest may be some person inside VECC Kolkata or any outsiders. In case of guests coming from outside of VECC the person details will be sent by fax/ mail and the VECC employee will fill up his data accordingly will raising a request for him.

Step 2. The guest house admin will periodically check the pending booking requests and allot room for those guests according to their requirement of room facility or guest house type and after the booking is done an confirmation mail will be sent to the guest as well as the VECC employee who requested for that concerned guest.

The admin can also cancel a booking in case an urgent room requirement arises for any conference or meeting.

Step 3. As the guest arrives the VECC gate, the security staff checks whether he has a booking to VECC guest house or not and if they found him to be a valid guest by seeing the data in the system then the allows him to enter VECC premises and gives him a CEP.

Step 4. The guest house staffs check the guest status and set his status to check in

Step 5. The guest house staffs will keep on adding all the expenditures that will be done by the guest as food cost and any other services.

Step 6. At the departure date of the guest the guest house staffs will generate bill against the guest and collect the payment and enter the method of payment to the system.

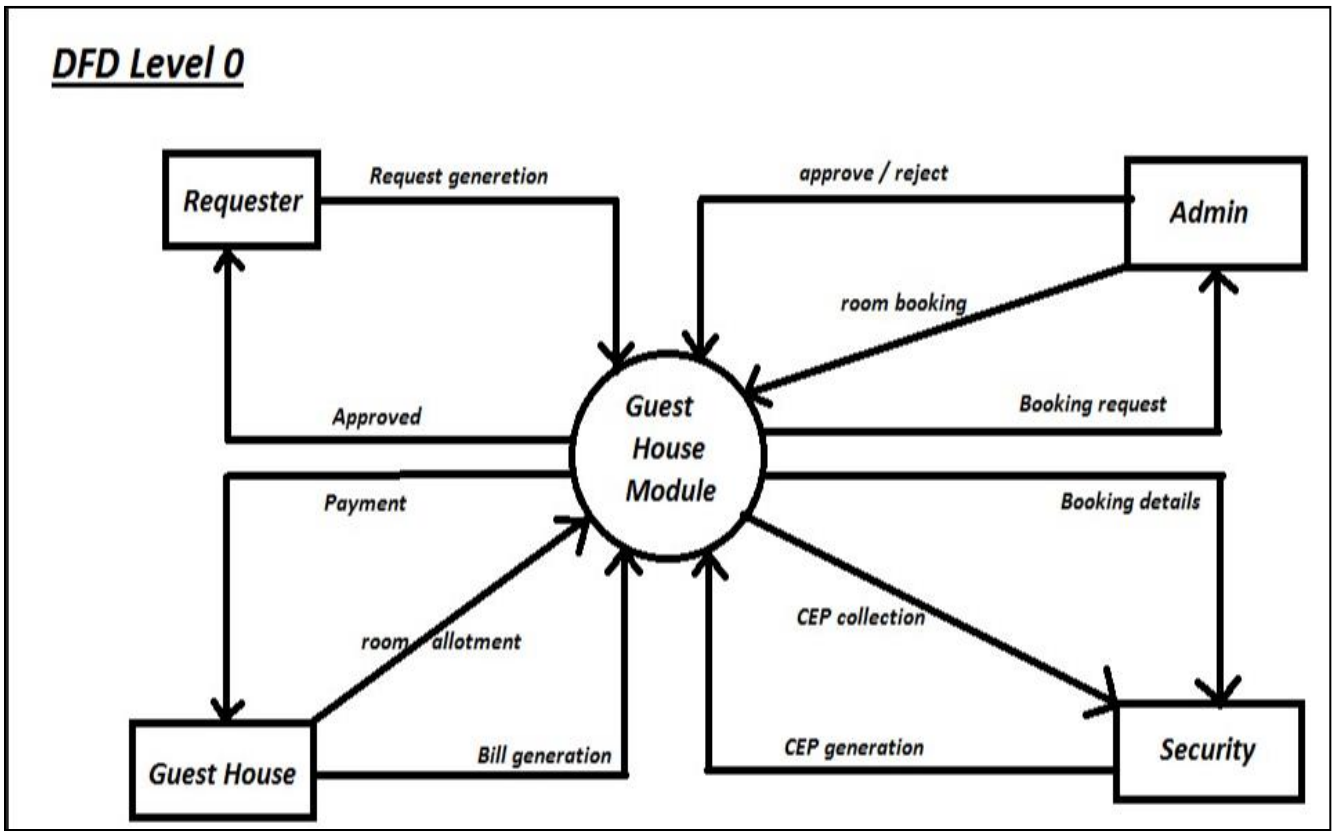
Step 7. After payment is done the guest house staffs will set the guest status as checked out at the time of departure.

Step 8. The security staffs will return the CEP given to the guest at the entry time, while he finally leaves VECC.

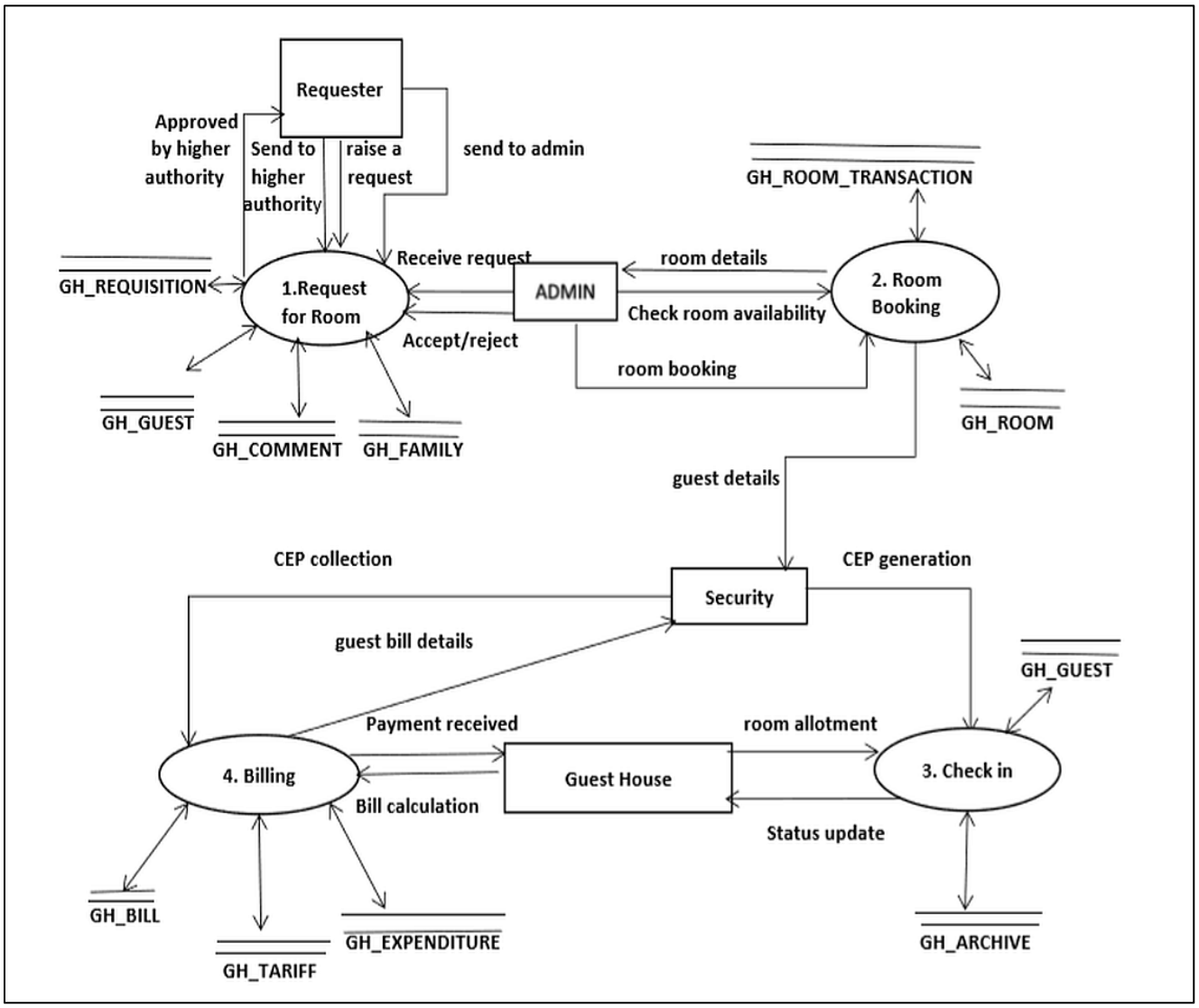
4.5 BEHAVIOUR REQUIREMENT

4.5.1 Data Flow Diagram

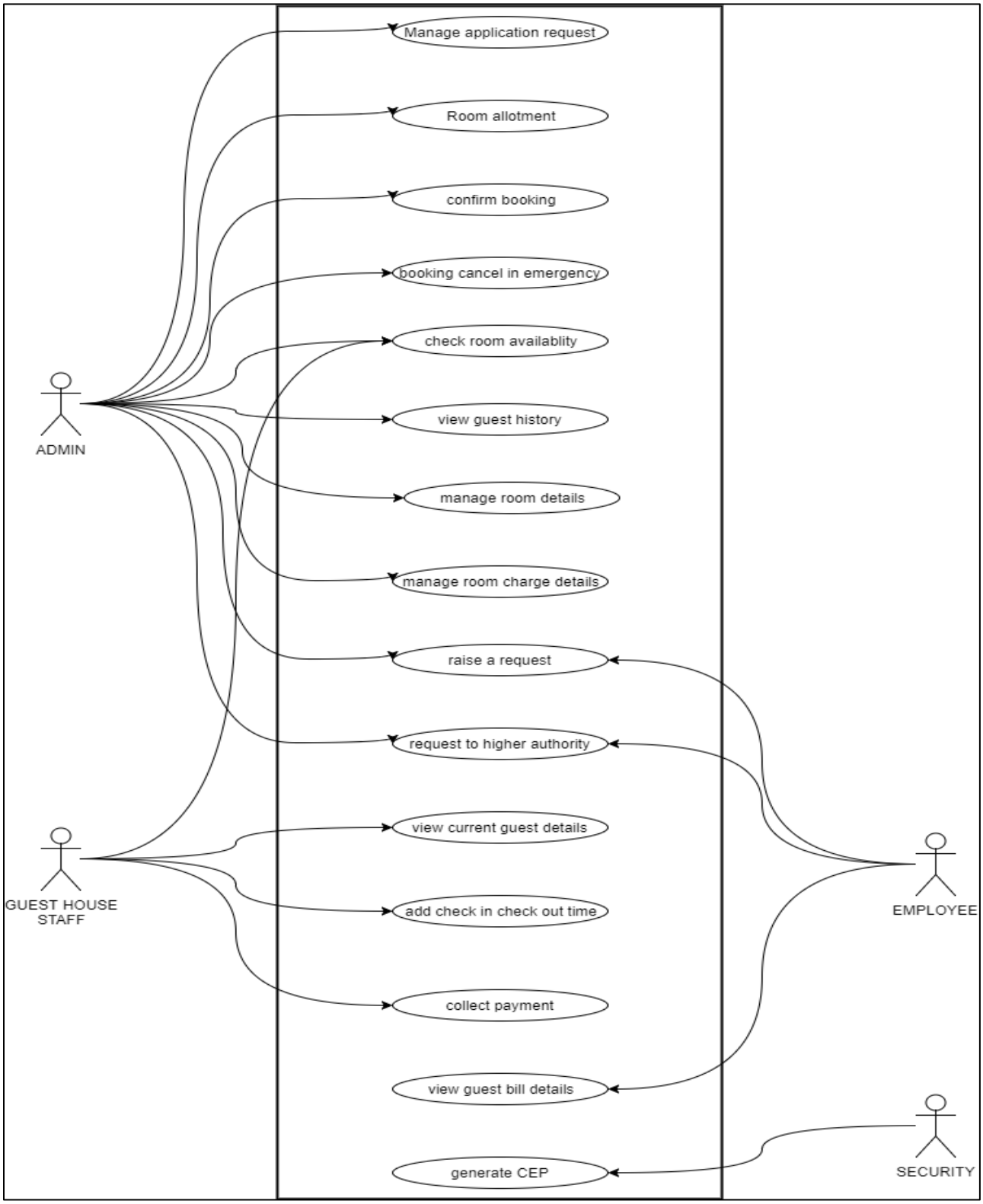
DFD-Level-0



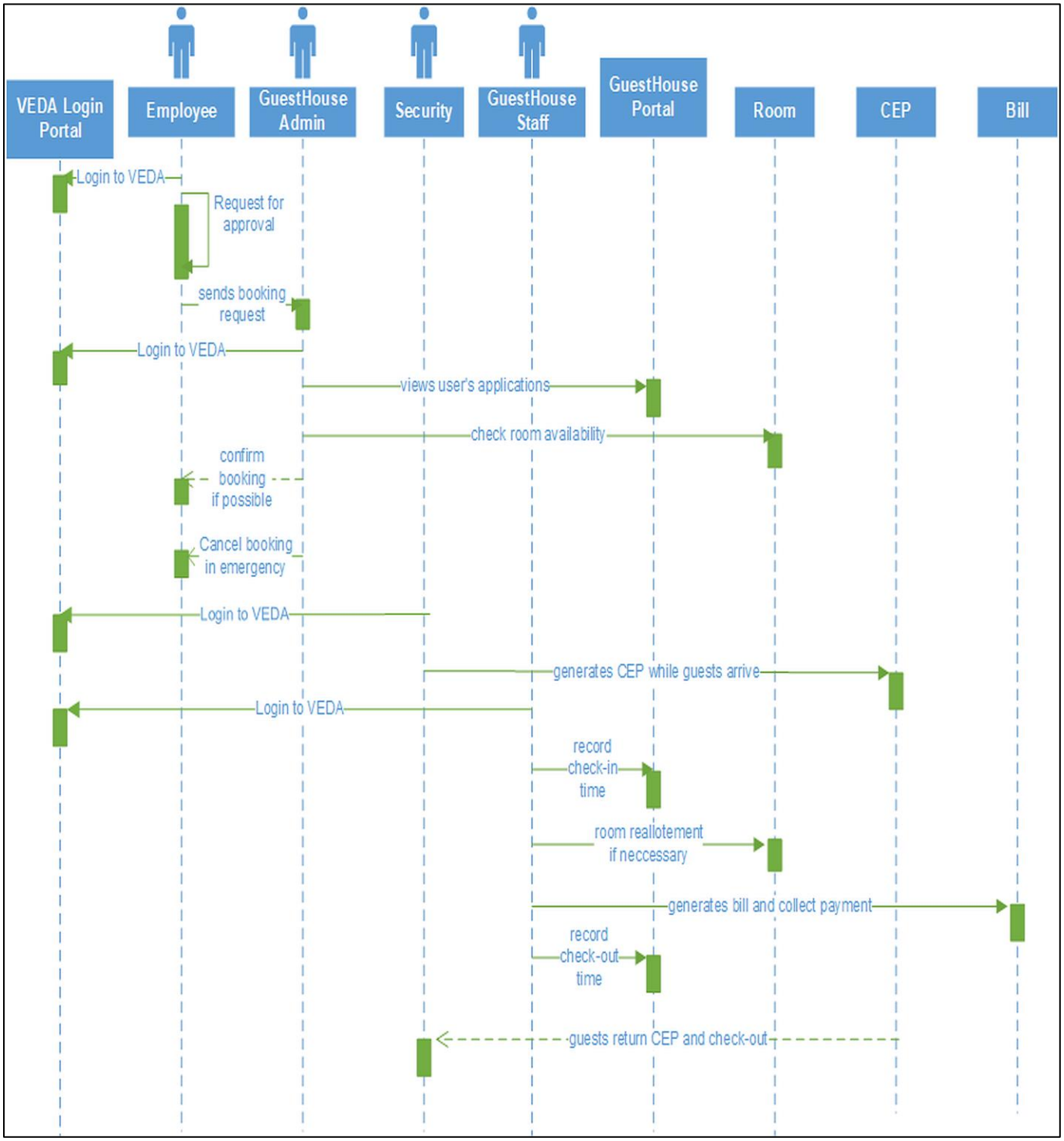
DFD-Level-1


Requester
Approved by higher authority
Send to higher authority
raise a request
send to admin
GH_ROOM_TRANSACTION
GH_REQUISITION
1.Request for Room
Receive request
ADMIN
room details
Check room availability
Accept/reject
2. Room Booking
room booking
GH_GUEST
GH_COMMENT
GH_FAMILY
GH_ROOM
guest details
CEP collection
CEP generation
Security
guest bill details
GH_GUEST
Payment received
room allotment
4. Billing
Guest House
3. Check in
Bill calculation
Status update
GH_BILL
GH_TARIFF
GH_EXPENDITURE
GH_ARCHIVE

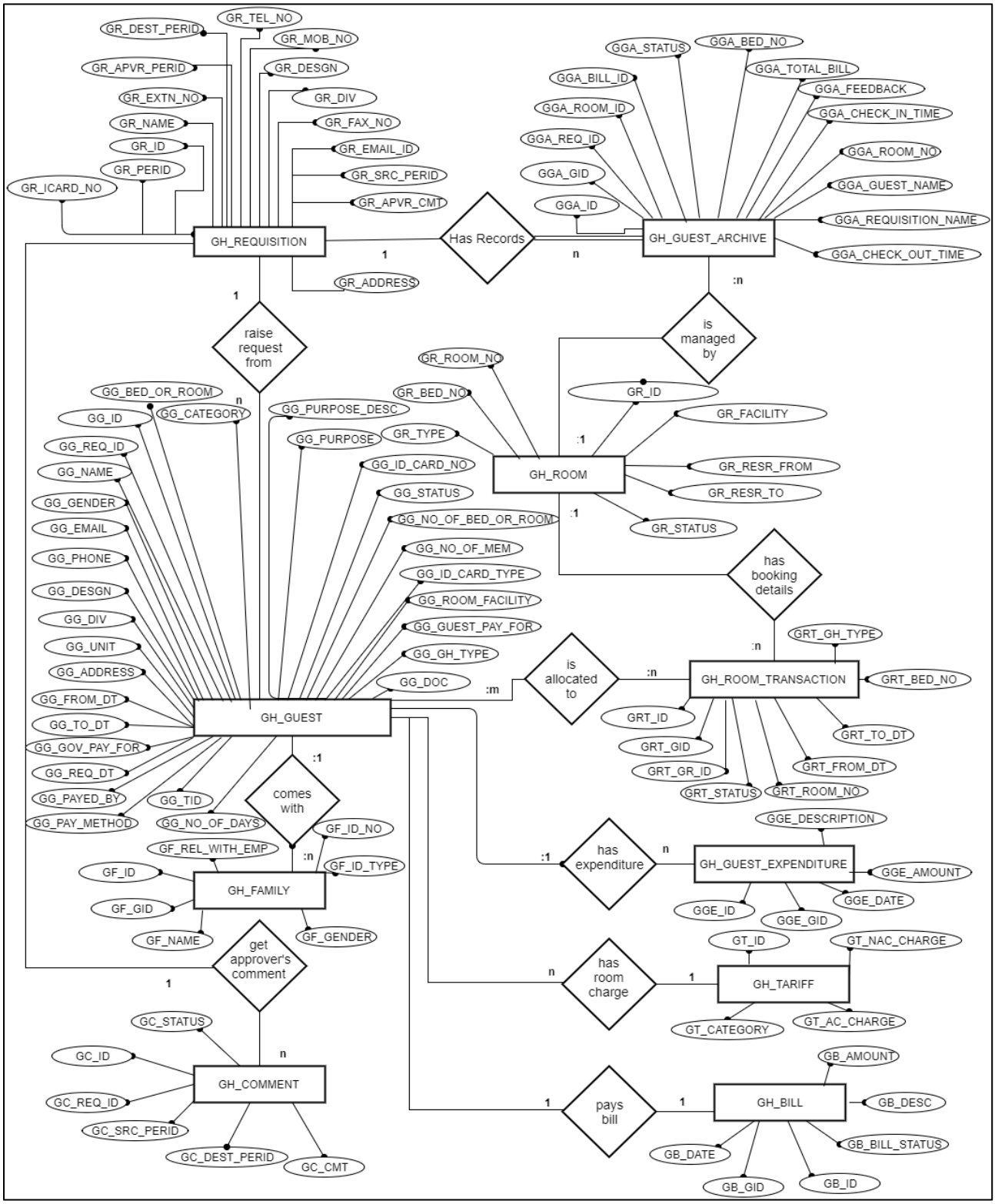
4.5.2 Use Case Diagram



4.5.3 Sequence Diagram



4.5.4 ER Diagram



4.4 OPERATIONAL ENVIRONMENT

Software Requirement:

Client Side:

- Browser: Internet Explorer and others
- Ram: 256 Mb and above.

Server Side:

- Operating System: Window 7 and higher versions.
- Front End: Html, CSS, JavaScript, Bootstrap
- Back End: Oracle Database, Grails, AJAX, itex
- Software Tools : Groovy Grails Tool Suite, SQL Developer
- Web Server : Apache Tomcat 8.0 or above versions
- Browser: Internet Explorer and others.

Hardware Requirement:

Client Side:

- Processor: Pentium 2.0 and above.
- Ram: 256 Mb and above.

Server Side:

- Processor: Pentium 2.0 and above.
- Ram: 2 Gb

Hard Disk Space: 4Gb

5 CONCLUSION

With the mandate from the VECC Guest House Admin, to develop a system that would computerize the guest house related activities, the system analyst has been able to come to a successful end of a journey that has seen him through ups and downs, hills and valleys that even seemed impossible to climb. The system analysts has accomplished the dreams that they had when he wrote down the objectives of this system. As they concludes, they are grateful that the system will be able to serve its intended purpose and meet its objectives to the satisfaction of the guest house staffs, VECC employees and guests.

6 RECOMMENDATION

For the system to function to its best capability, the analyst recommends the following:

1.0 Networking of the guest house's computers to enable data communication at the guest house.

2.0 The GUEST HOUSE server be connected to the intranet. In addition the guest house should have a web site onto which the booking page will be loaded to enable online booking over the intranet.

3.0 The system should be troubleshoot and updated to maintain the high competence standards of the system. This is because, being a system, the VECC GUEST HOUSE MANAGEMENT SYSTEM is bound to undergo system entropy.

4.0 High security measures should be upheld in order to avoid theft crimes at the guest house.

5.0 The latest versions of antivirus be installed and updated frequently in order to detect the many virus programs that are emerging daily in the IT society.

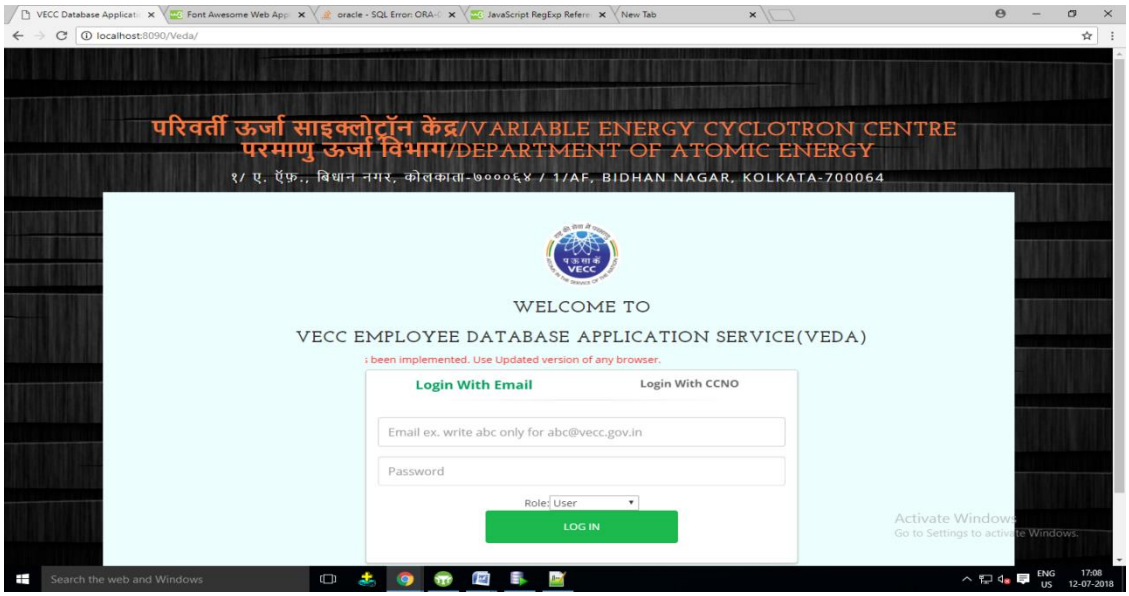
6.0 Every staff of the guest house is identified uniquely by a user name and password to his/her office computer.

7 APPENDICES

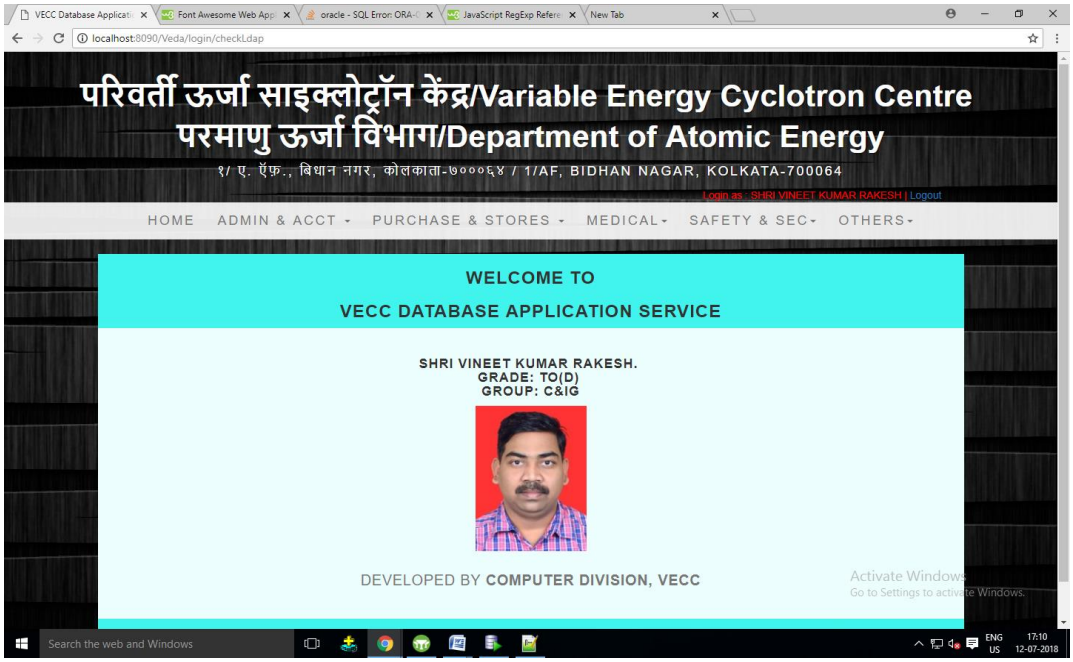
7.1 DATA GATHERING TOOLS

- Oracle SQL developer
- Oracle SQL (*) plus

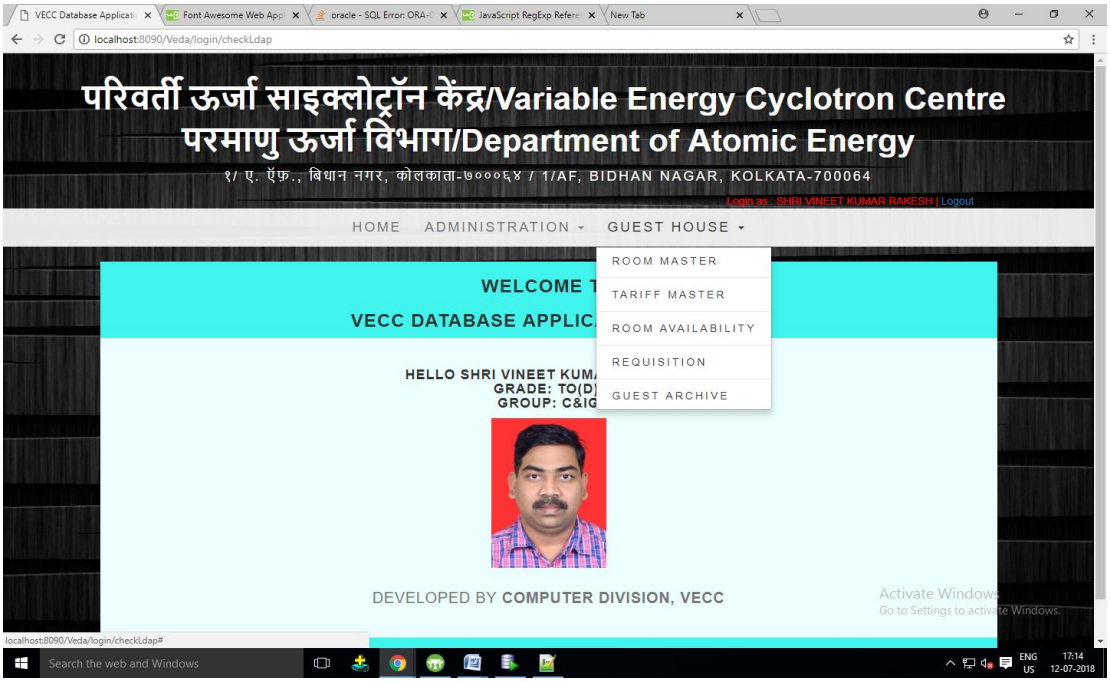
7.2 LOGIN PAGE SCREEN SHOTS



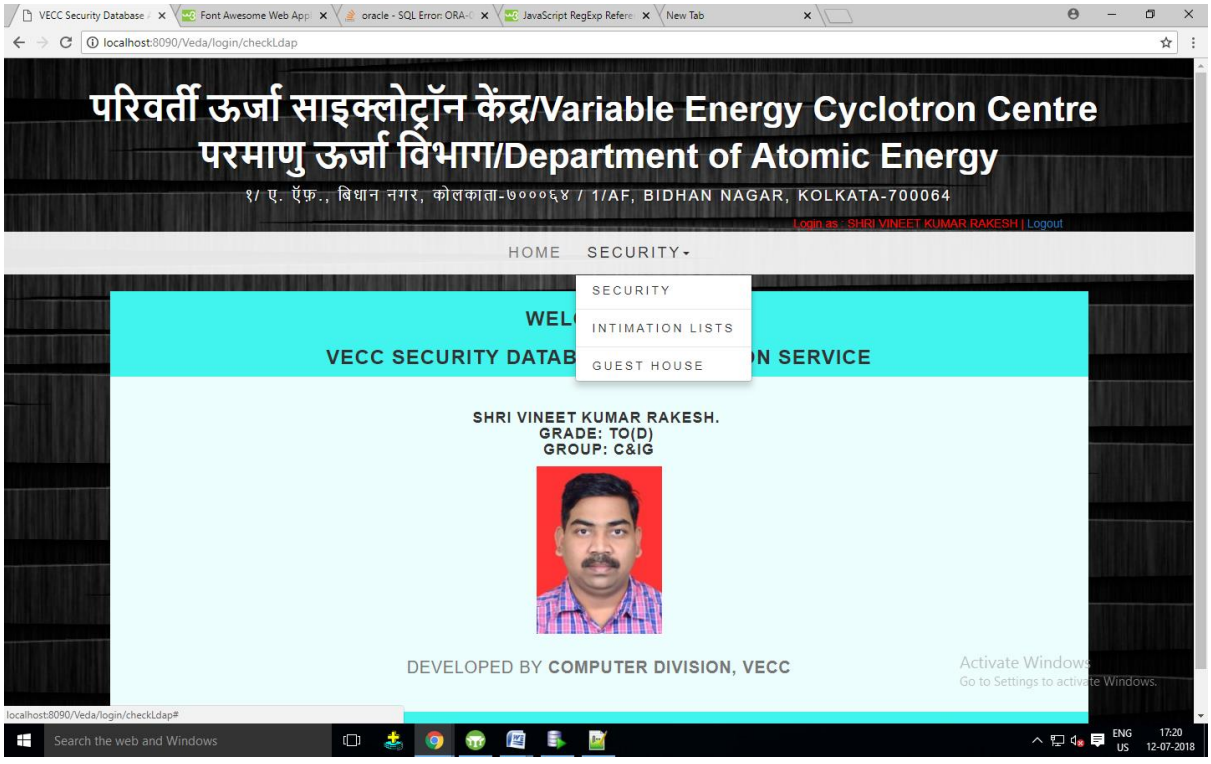
USER HOME PAGE



ADMIN HOME PAGE

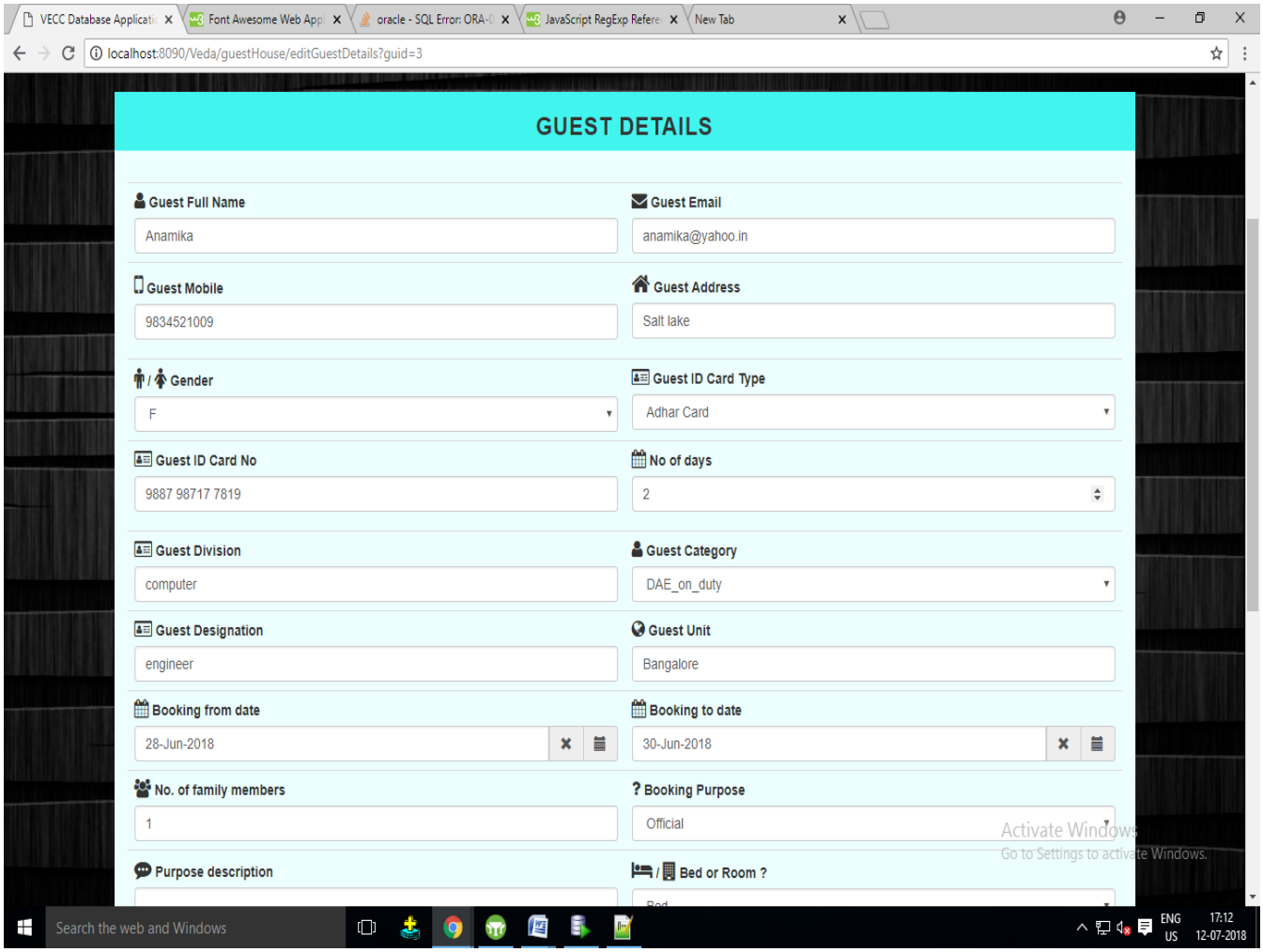


SECURITY HOME PAGE

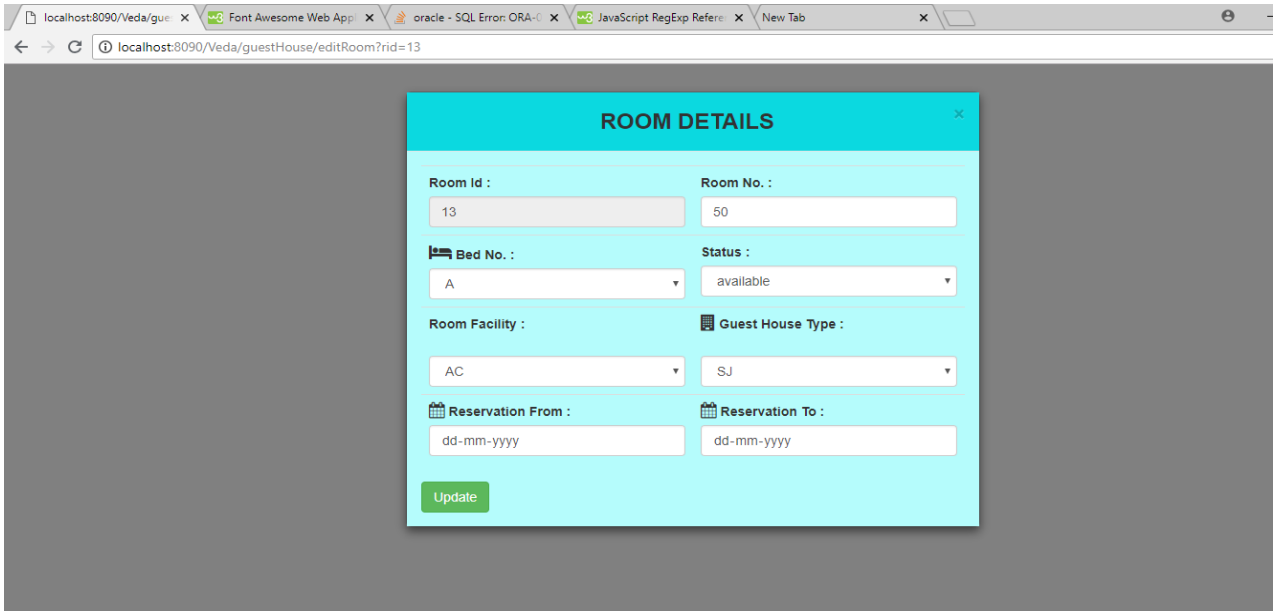


7.3 FORMS SCREEN SHOT

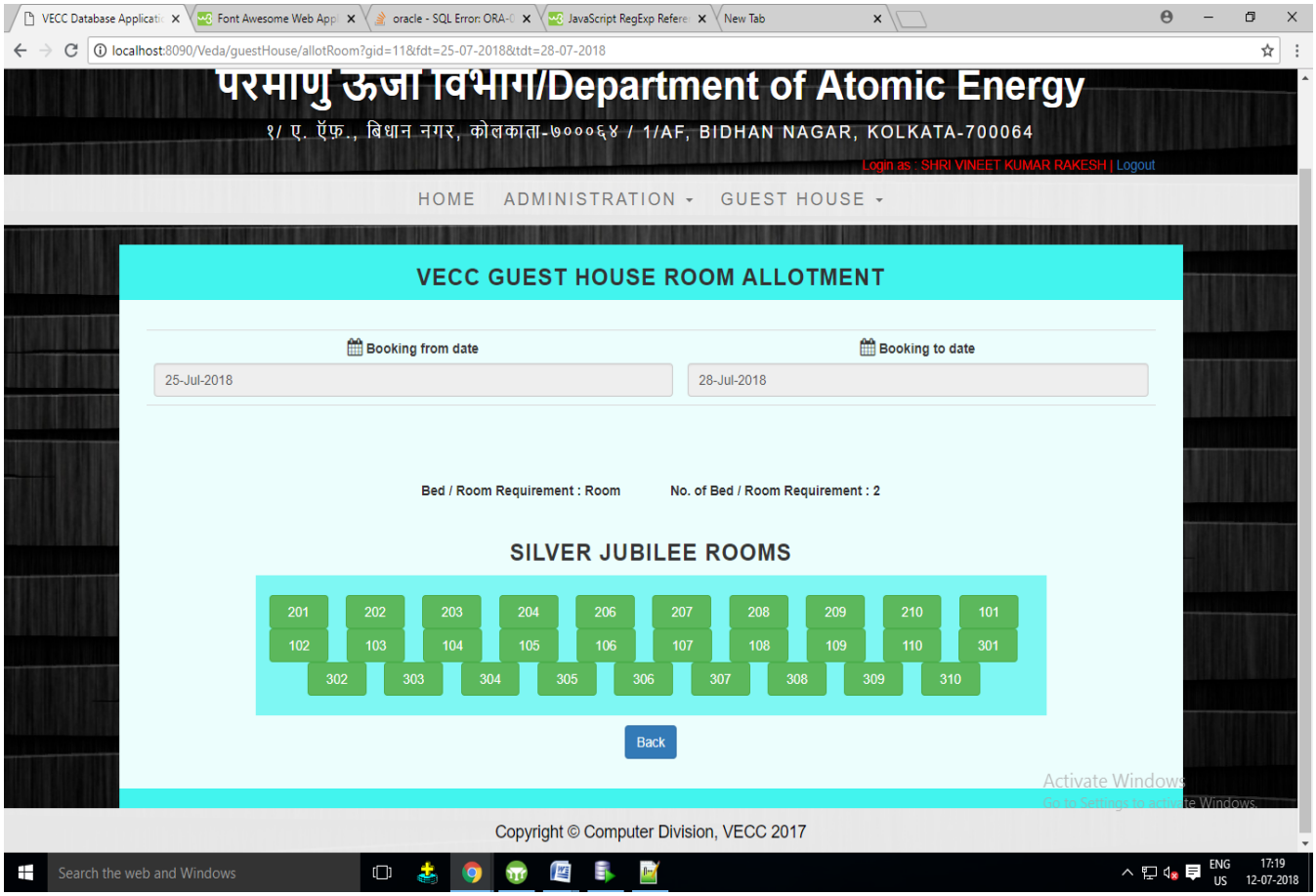
GUEST DETAILS FORM



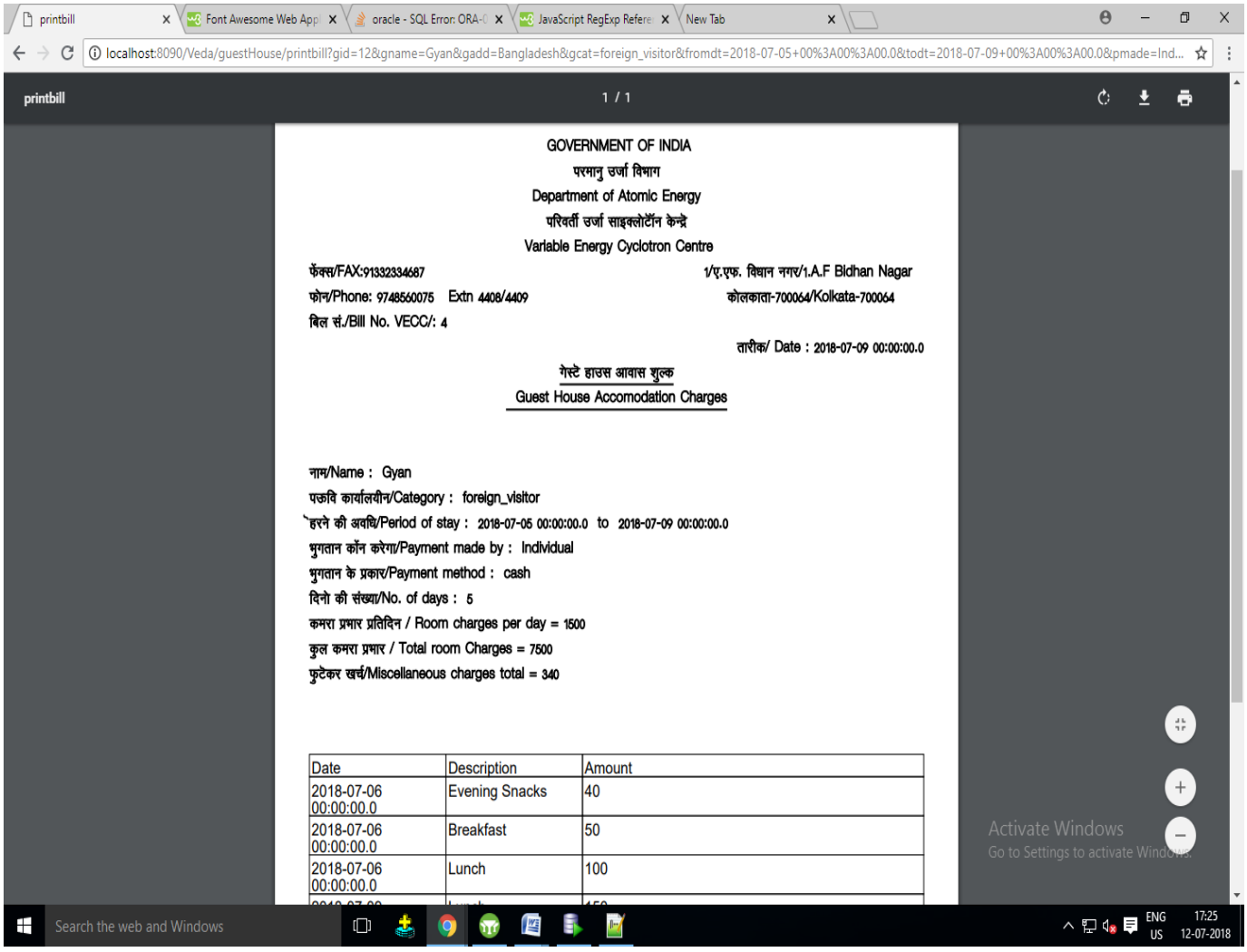
EDIT ROOM DETAILS FORM



7.4 BOOKING WEB PAGE SCREEN SHOT



7.5 BILL GENERATED SCREEN SHOT



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