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I confirm that this assignment is my own work. Where I have referred to academic sources, I have provided in-text citations and included the sources in the final reference list.

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Interaction of Peoples in Between Fixed Computers and Mobile devices

In today's world interaction of human beings with fixed computer like desktop and mobile device is changing day by day. The development of digital computers is rooted in the abacus and early mechanical calculating devices, Charles Babbage is credited with the design of the first modern computer and today desktop computers are developed in many ways. The first cell-based phones were developed by AT&T in the 1940s. It was a major contribution to mobile technology, but the first real mobile phones had to wait. The first personal computer was made by MITS a small firm named as Altair. It was developed in 1974 which used Intel Corporation's 8080 microprocessor. English mathematician and inventor Charles Babbage made the first computer and started the era of digital world. Fixed computers are desktop computer that is designed to stay in a specific location. Later, April 3, 1973, by Motorola employee Martin Cooper invented the first mobile phone. Cell phones have enabled us to do various tasks all at the same time. Cell phones have also enabled families to keep in closer touch with each other. It was then developed in many ways and now mobile phone can do all the things same as computers with highly developed technologies. In this essay, my stand is that interaction of peoples with mobile devices are much more than fixed computers in work and students' life in terms of hardware and peripheral requirements changes. Also, it will show that how mobile technologies like QR code and some application replaces scanners and printers. This essay will ascertain and evaluate the relationship of mobile and desktop (fixed computers) with people and further highlight the differences between advantage and difficulties faced by both. The main factor of which plays a key role is interaction of students with desktop and mobile phones.

In today's world e-learning is playing significant role in student life in their academic year. As students uses e-learning platform while doing studies for Self-learning. Students prefer mobile phones for doing e-learning rather than fixed computers. In terms of hardware and peripheral requirements the mobile devices are smaller and can bring anywhere because of which they can learn from anywhere and anytime as per their time convenience through mobile phones. According to Sung and Mayer (2012) mobile devices are much accessible, portable, and newer compared to desktop as they are stable, more faithful, and focused which shows in USA and South Korean students. However, studying anywhere and anytime might distract their attention and because of this it may not be useful students in education. According to Nass and Takeuchi (2001 cited in Sung and Mayer 2012 p.1329) studies shows that American students seems more positive towards the desktop computers. Several researchers (Sung and Mayer 2012) stated that South Korean compared to others is much better and recognized for its world leadership in mobile technology. Also, in USA mobile phones seems to play a significant role in their everyday life. Based on above research, it shows that students give preference to mobile phone for their academic life and use every day as compared to desktop computers in terms of peripherals requirement like flexibility, portability, and

accessibility of mobile phones. In addition to these, mobile phones play significant role and are more developed in terms of mobile applications.

In organization, trend for paperless office or e-government has grown frequently. The digital scanning and printing are more affordable, and it is at low cost. The concept Information and Communications technology includes the advance tools using technology. Digital scanning and making paperless work make more efficient to work and helpful to secure the data from getting stolen. They are cost efficient and QR codes are also much more useful in day-to-day life to get things done easily with just a single scan. The adoption of mobile technology for using mobile scanner is because of organization or work life as it has positive result in latest researchers (Permana. Et.al 2021). QR code is also widely used in attendance system for employees and as well as for students. As with the help of QR code it is easy to mark attendance as compared to marking the attendance using login credential on computers (Kumar and Kareemulla 2017). However, there will be security concern about this as anyone can mark attendance of another employee or students by using this technology and for documents like government issued legal documents and property papers and many more needs to be in paper format in compared to digital scanning format used by mobile. It is more secure to store in computer as mobile phone can be easily hack and stolen so there is substantial risk to keep the data in form of digital scanning in mobile phones. There is feature named as digital scanning which will be useful for the legal documents like property paper and many more. Non-repudiation and authentication are provided by digital signature feature (Warasart and Kuacharoen 2012). Also, electronic government (e-government) term is more widely used and improved (Dinora. Et.al 2015). In addition to these, marking attendance through the QR code is secured by the organization in this way, like it is only accessible by the employee itself with connecting to the secured Internet of workplace. So, this makes the attendance more secure that only respective employee can login and mark attendance. Therefore, it shows that mobile applications are more useful in work and students' life like QR code, digital scanner, and digital signature.

In conclusion, this essay examined and determined that the presence of mobile phones application and their technologies are more useful than desktop (fixed computers) in terms of work life, cost efficient using digital scanner, digital signature, QR code and many more. Also, it is beneficial for the students to use the mobile phones for their learning anywhere and anytime as it is difficult to use Desktop computer. In addition, it is expected and necessary for organization to get secured and use more technologies for avoiding the risk in future like marking the attendance from anywhere and needs to use proper IT supports needs to use. It is therefore inevitable that interaction of peoples with mobile devices are much more than fixed computers in work and students' life in terms of hardware and peripheral requirements changes. However, it needs to be taken care about the security and trying to keep the digital scanned legal documents in safe place as it is risk of getting stolen. Desktop computers are best to keep the data stored so use of both desktop computers and mobile phone combinedly will be more effective.

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BYOD- risk or safe and secure

The distribution and use of personal smart devices has expanded in recent years, as have smart-work services. This issue has ushered in the BYOD (Bring Your Own Devices) era, in which employees utilize their personal smartphones and tablet computers at work. BYOD is a broad word for employee technology, concept, and policy. When BYOD was first introduced in 2009, it was intended to lower the cost of technology in schools and workplaces. Little by little, it has gained great popularity among students, thanks to technological progress that has been helping young people to grow faster and smarter. Collecting refers in relation to technologies, concepts, and policies this term is known as BYOD (Bring Your Own Device). For work, using personal devices, personal mobile devices, is useful for employees to access Internal company IT resources. As such, in this essay my stand is that BYOD is not useful for organization and will not be effective in work life. This essay will ascertain and evaluate the relationship of BYOD on employees and further highlight the differences between positive and negative impacts BYOD has on organization. It will illustrate how BYOD has not been effective in work life through work environment, and security concerns. One major disadvantage of BYOD is that the employees get more works to do while using their personal devices and it needs more cost to implicate in organization.

Peoples are encouraged to use their personal devices for personal and professional purposes, and they carry their personal devices, like smartphones, laptops, and others almost everywhere which tends to bring the work to home and home to work. As using personal devices in work life brings home to the work however, it also brings work to home that is why employees feel more comfortable to work on personal devices. Niehaves et al. (2012, cited in Doargajudhur and Dell 2018 p.520) while using personal devices employees feel they have more work to do. This is because of the workers need to work in traditional working hours it means other than the working hours as because their personal devices are already setup for work. However, according to a survey conducted by Cisco in 2012 on 600 companies (Koh, Oh and Im 2014) productivity of the employees is improved as because of using the personal devices gives them smart environment which is based on 95% people from them. Efficiency of work and increasing convenience is all seems to because of BYOD from the users' point of view. According to the several researchers (Doargajudhur and Dell 2018) it shows that employees feel comfortable while using their own devices for work. As they are comfortable with their own devices, and this results in high efficiency as workers are already known each function and feature of their devices. As adopting BYOD in work life will cause cost efficiency as it reduces hardware spend, software license and as well as device maintenance (Evans 2013). In Xceed group, they have improved productivity, and staff motivation as because of allowing the employees to use their personal devices (2012, Shaun Smith cited in Evans 2013 p.2). According to Evans (2013) BYOD seems to find cost implications as because for using personal devices to get work for

organization it needs to be modified and installed with software for avoiding threats and some office work software which cost more to organization. As different type of operating systems needs different type of software which cost is more. Also, workload of employees is considered as amount of work they need to complete which pressurize the workers and they feel that they have lots of work to do and this work must do outside working hours as well while using BYOD. Therefore, based on above research it clearly states that adopting BYOD in work life brings a workload for employees as they have to work after office hours, and it is cost implicating as every operating system device needs a different software which cost more. In addition to these, security concern is also a major factor affecting the effectiveness of BYOD in work life.

Data security in organizations as it is the key factor for any business and employees to feel comfortable and it needs to be confidential for certain companies. As BYOD concept leads closed work environment to open environment where employees are able to do their work anywhere and anytime and this is because of employees can access the company data and able to connect to the company server through VPN. Using BYOD concept in work life brings a risk to get those internal data leak to public platform which later cause many types of loss to any company. As people using BYOD uses their personal devices for company purposes and to do their work while doing this there may be a risk of threat or virus attack which may cause this data leak to public platform. As adopting BYOD in work life increasing the risk of leaking the corporate data as it might be possible to get employees personal devices like smartphones, tablets, and laptops to stolen from thief which can lead to security issues (Koh, Oh, and Im 2014). However, giving training and educating the employees about BYOD security and implementing some strict rules for this concept which will leads to secure from those threats (Downer and Bhattacharya 2015). There are security frameworks developed like Network Access Control (NAC) and VPN. In NAC, it is useful to implement the limit of users to connect with the server of company, also it restricts the unauthorized users by connecting. With the help of VPN this get easier to secure the network and it protects the security system. According to Downer and Bhattacharya (2015) as there is still measure concern about the maintaining the stable and secure connection as the internet connection used by employees like device connected to external sources are more likely to get hacked and this again impact on data security. As still there is concern and difficulties find in implying the BYOD security policies on employees and as because focusing on all employees are difficult so because of which there are several employees who did not follow the rules and strongly disagreed with the BYOD Security policies. Therefore, it clearly states that the security is still major concern for the BYOD effectiveness in work life. As it causes major damage to business by leaking the internal, corporate data.

To conclusion, the BYOD concept is not effective in business life and not useful to implement in work life for employees. There is benefit of BYOD like many employees feel better to use their own devices for work which gives work efficiency and as well as somewhere it is cost efficiency. However, because of the major concerns like security

and installing the software for every device with the several types of operating systems causes more loss to companies. It is therefore inevitable that BYOD systems is not effective in work life, negative and not useful for organization especially in security concerns. However, it is sometime useful to use BYOD as many workers feel more comfortable while using their own devices and it leads to do the work more efficiently and fast. For this, it needs to be implied with proper and strict rules and regulations for the people who use BYOD concept for avoiding the security concerns. Organizations needs to use some best framework to keep their data secured and avoid the hackers' threats.

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SWOT Analysis of E-learning, Banking, and Cloud backup

Today many of mobile applications are rising day by day for making life easy for many peoples. In 1997, the Nokia 6110 included a built-in version of the basic arcade game "Snake," which many consider the first mobile app. A mobile application, most commonly referred to as an app, is a type of application software designed to run on a mobile device, such as a smartphone or tablet computer. In this essay, I will analyze the several types of mobile applications which is used by many peoples. This essay will also analyze Strength, Weakness, Opportunities and Threats (SWOT) for those applications and further highlight the advantages and disadvantages of each application. It will illustrate the SWOT analysis of Cloud Backup, E-learning mobile application and Google classroom. To begin with SWOT analysis of Cloud Backup mobile application it is useful to store the data for long life.

"Cloud" service (cloud computing) is installed on a web server managed by the service provider, and access is via a web browser or mobile application. It allows sharing computing resource access across the Internet through many devices like PCs, Smartphones and many more and it allows users to access, store, process and synchronize the resources. With this cloud backup services it is easy to store, share information and data for long life. Strengths of Cloud backup are Functionality, Mobile access, ease of use, help and support, reducing the costs, and Flexibility. In terms of Functionality, to store and share any kind of information as like saving on hard disk can be done by cloud backup. It has password protection and encryption for the sharing. In addition, as it can be done by many devices including mobile phones which gives the unique factor, and it is the biggest advantage of cloud backup as it allows to use certain content browse from the mobile devices and substantial number of applications. Because of its friendly interface it is easy to use on mobile. In terms of support and help, Cloud backup services applications like Backup as a Services (BaaS) has their forums and it has platform where the users can get support via telephone (Denchev, E. 2016). As supplier performed updating and upgrading of BaaS application because which it saves time and costs. Moving further, as there has disadvantages or weakness like the stored data is not accessible when there is no Internet access for the device. As BaaS application may have different functionality from the one offered by local applications which can leads to lower access for some functions. However, it still gives many opportunities like Maintaining web storage, and content, sharing the content with different users and giving them different rights individually like editing, deleting something from the data and Security transferring and store data by modern encryption technologies and many others. In many cases there is risk for security, like in BaaS it seems that their developers do not comply with modern encryption rules that secures the data from unauthorized access (Denchev, E. 2016). However, many companies are

developing upgrades for mobile applications to avoid the risk about the data and making cloud backup more secure. BaaS seems to develop unified solution that will help to get protected against threat attacks. Therefore, based on above research it states that Cloud backup is useful for many peoples, and it makes easy for storing, sharing, and accessing the data anytime using the Internet. Moving further to the next application, now a days Mobile banking applications are also trending.

Mobile applications are developing widely in today's generation. There is phrase mobile commerce for mobile banking which gives people to access their bank accounts online through mobile. The term was first introduced in 1997 by Kevin Duffey and now it is worth of US$230 billion (about $710 per person in the US), with representing almost half in Asia in 2015. Online access for substantial portion of world's population, location sensitivity of the devices, authentication and authorization capabilities and the anticipated ubiquity of devices these are the four main factors on which strength of M-commerce is based on. There are several factors which plays a significant role for success in M-commerce some are Wireless (Network) Infrastructure, Mobile Middleware, Wireless User Infrastructure and Mobile Commerce Applications (Kaur, M. 2015). In today's world many places have wireless connection and because of Internet connection available continuously to the people gives innovative service delivery. However, there are some weaknesses for mobile banking like lack of data security and digital identification. Some mobile devices do not have reliable connection because of which mobile banking applications does not get proper interaction to users. Many peoples are there who do not understand English which makes communication gap in between them. The key driver of mobile services is that size and growth rate of the mobile market. Without any geographical limitations third world citizens seems that they are able to communicate easily anywhere and engage in business (Kaur, M. 2015). Some risks are there in mobile banking applications like security data risks, wireless infrastructure security risks, Mobile Middleware Security Risks, Mobile Application Security Risks. As there are possibilities of mobile phones to get stolen by thief so that will cause an issue to get access for thief to access bank accounts. In the wrong hands, it may cause financial loss. On the above research, it shows that mobile banking is useful and makes everyone easy to access their bank accounts however, it needs to be done in security protocols. In addition to the topic, e-learning are also growing frequently and making trend for many users.

In the modern world, in this pandemic and condition of self-isolation many universities faced challenges for delivering the high quality of education to students. In this situation, e-learning growing to faster and providing the high-quality educations to the students via applications like Google classroom, Zoom calls and many more. Its content free access to learners, data storage, rapidity and mobility are some of the strengths of the e-learning. Based on survey filled for the Train Chinese and LaoshiDict applications it says that students feel positive about the learning language from the mobile application and towards the form of work (Safonov, M. et.al, 2021). However, there are some weaknesses like lack of content, training, grammar material and

additional feature cost more and it is on paid basis. As there is contact lack in between learning and limited ability for improving the study skills of learners. It is noted that there are some opportunities factors like it seems to better to develop grammar material of learners. It also adds competitive aspect regularly and updates their content which also gives the opportunity to learner to learn from the best interaction. According to Safonov, M. et.al, (2021), main threat is seeming to be that it has Correlation with school curriculum, not college curriculum which leads to limited choice of application, and it brought to the fore the role of teachers in task selection and assignment when using this mobile application. The research shows that strength and use of e-learning brings to the new world of education however, there are some weaknesses which needs to improve to get this accepted by universities.

To conclude, the essay shows that there are many strengths of using mobile applications for e-learning, cloud backup and m-commerce as like google classroom, zoom, mobile banking applications, google drive and many more. However, they need to be done in security protocol to avoid data leak and security risk. They have much more opportunities to be considered like developing grammar material, getting engage in business, communicating anywhere in the world through banking, maintaining web storage and many more. So, in this essay I have done SWOT analysis of several types of mobile applications which is used by many peoples. However, it is important to take precautions for security, and improving some advance features for getting this improved to the world technology environment.

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Two Phase Commit and Three Phase Commit synchronization

Database is popular now days, as it is useful everywhere for every technology. It is needed to save the data of students, employees and many more. Now a days database used by many systems. A database is generally an organized collection of data that is stored and accessed electronically on a computer system. Supports data storage and manipulation. That is, databases are used to store, manage, and retrieve information within your organization. The first computer database was built in the 1960s, but the history of databases as we know them, really begins in 1970.As such, in this essay I will do the analysis of Two-phase Commit and Three phase commit synchronization process. Also, this essay will ascertain and evaluate the four principles of Transaction-Orientated Database Recovery help in guiding data management. It will illustrate the analysis of two-phase commit and then three-phase commit. Also, it will describe the four principles which Atomicity, Consistency, Isolation, Durability (ACID). To begin with analysis of Two-phase commit, it is synchronization protocol.

It guarantees global atomism of transactions even in the event of failure of the sites and communications used in distributed database systems. Each site that is eventually recovered from a failure ensures the atomicity of transactions at the local level. Two-phase commit (2PC) is a synchronization protocol that solves the atomic promise problem, which is a special case of the Byzantine general problem. The participants which mean, two phase protocol is executed by a coordinator process, while the participating servers. In any distributed database system, the use of two phase(2PC) system is mandatory in which the tradition al atomicity property of transaction is to be preserved. In compared to its two variants, 2PC basic has never been implemented in commercial database as because of the cost. However, there are two problems with the 2PC which are Blocking and state inconsistency. When the participants are in uncertain phase by the failure of coordinator the two-phase protocols go into blocking state. In addition to these, the commit protocol's global state vector serves as a container for all participating node states for a single transaction.
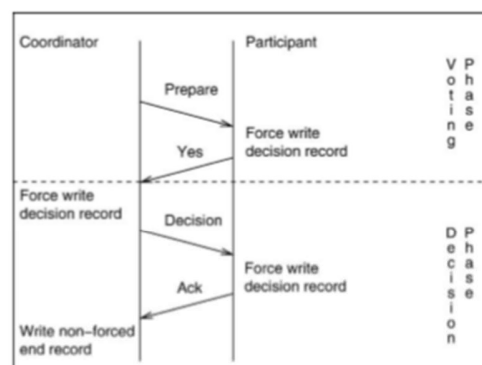
Two-Phase Commit. Figure 1. The two-phase commit protocol.

Source: Al-houmaily, Y. and Samaras, G. (2009)

Moving further to the three-phase commit protocol. Unlike 2PC, 3PC (Three Phase Commit Protocol) is a non-blocking protocol. Here [3] introduced a new state called "precommit" for adjustments. Coordination will only reach this "precommit" state if all other participants have voted to commit. Once the coordinator is in the "precommit" state, the only option that allows the transaction to be aborted is a timeout in response to a participant's failure, which is the only one. Otherwise, the transaction is completed with the approval of the participants. However, there are some issues caused in 3PC like The Three Phase Commit Protocol is only problematic if multiple sites fail (as demonstrated in Section VIB). As example, if the coordinator is in the "precommit" state, it will fail immediately after sending a commit message and the slave will also fail just before or after receiving this message. Therefore, because of the failure, the slave moves in a suspended state, but depending on the protocol specifications, the coordinator moves in a failed or committed state for approval. Therefore, the coordinator moves in the committed state without approval, and the failed slave moves in the suspended state without sending approval. In this way the coordinator and participants show other final conditions due to the disability.
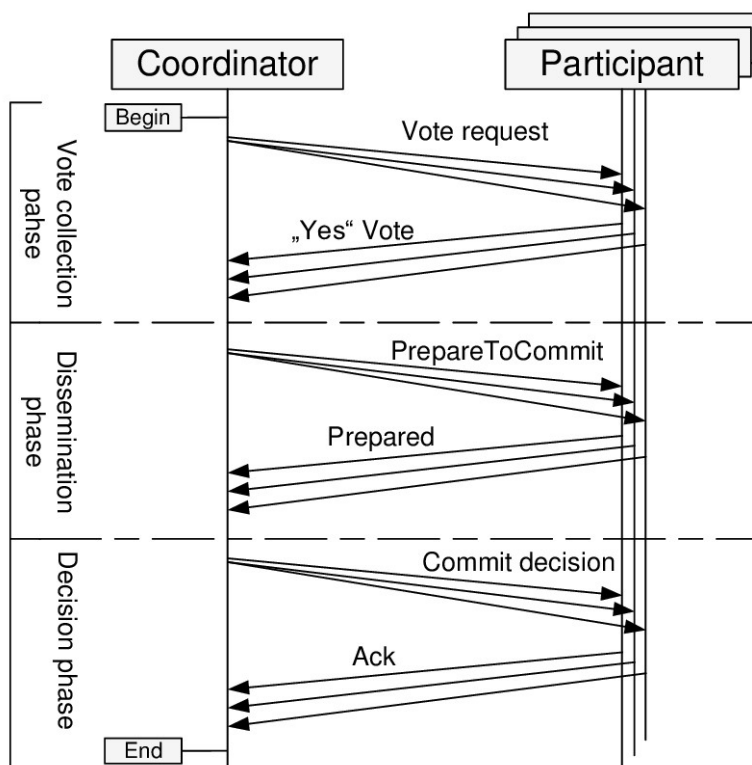
Source: Neeraj Suri, Perturbation-Resilient Atomic Commit Protocols for Mobile Environments

Moving further to the principles of Transaction-Oriented Database Recovery. There are four principles named as Atomicity, Consistency, Isolation, Durability (ACID). A set of attributes in a database transaction whose purpose is to ensure the validity of data in the event of errors, power outages, and other incidents is known as ACID. In the context of a database, a set of database operations that satisfy the ACID property (recognized as a single logic for data) is called a transaction. In 1983, Andreas Reuters and Theosege devised the acronym ACID. It is based on early work by Jim Gray, who cited atomicity, consistency, and durability when characterizing the concept of a transaction, but without segregation. These four attributes are key guarantees of the transaction paradigm that have influenced many aspects of the development of database systems.

If the statements that make up the transaction are not complete, the entire transaction fails, and the database remains unchanged. Atomic systems need to be atomic in all situations, including power outages, errors, and crashes. Transactions often consist of multiple statements. Atomicity guarantees that each transaction is processed in one "unit" that is completely successful or completely unsuccessful. Consistency maintains database invariance by allowing transactions to move from a valid state of the database to another. All data recorded in the database is valid based on all defined rules, including constraints, cascades, triggers, and combinations thereof. This will prevent database corruption due to illegal transactions, but there is no guarantee that the transaction will be accurate. Isolation is the main goal of concurrency. Depending on how it is used, the impact of an incomplete transaction may not be visible to other transactions. Durability guarantees that once a transaction is committed, the transaction remains committed, even in the event of a system failure (such as a power outage or accident). This usually means that completed transactions (or impacts) are written to non-volatile memory.
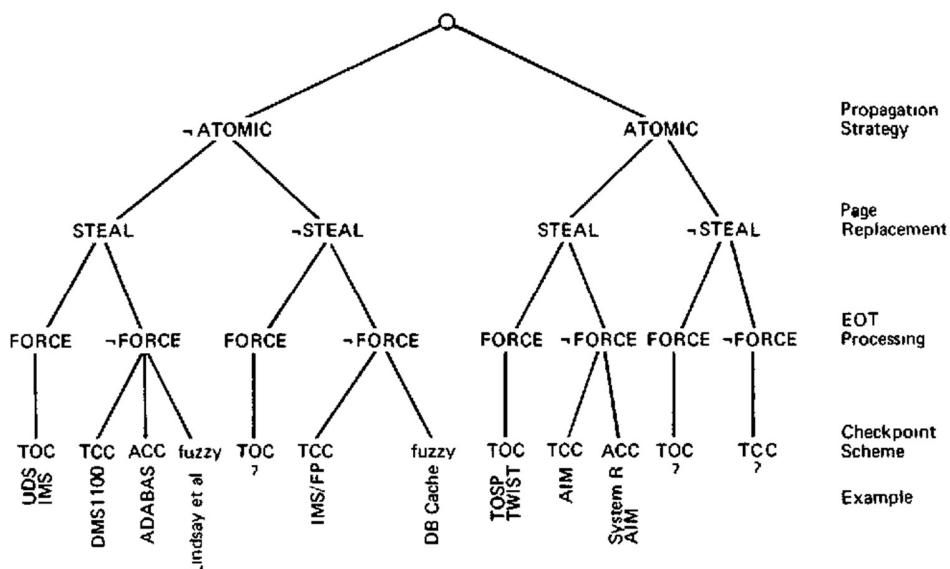
Source: T. Haerder, A. Reuter (1983) Principles of transaction-oriented database recovery

To conclude, this essay evaluates and analyzed the two-phase commit and three phase commit and four principles of transaction-oriented database (ACID). There are some issues or problems with the two-phase commit, also in three phase commit. There are four principles of transaction-oriented database which are Atomicity, Consistency, Isolation, Durability (ACID). Also, it shows some figure for the two-phase commit, three phase commit and principles of transaction-oriented database. In this essay I did the analysis of Two-phase Commit and Three phase commit synchronization process.

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SYSTEM DESIGN
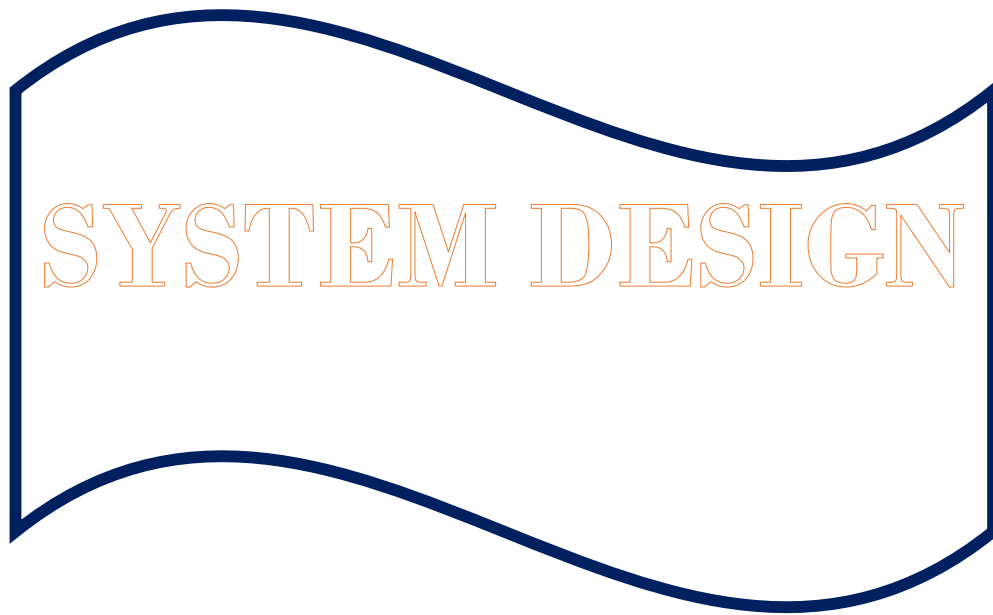
E-R Diagram: -

Class Diagram:-

administrator

+Username: String
+Password: string

+Login()
+Display()
+Logout()

User

+Name:String
+Email : String
+Nationality : String
+Phone no. : Integer

+register()
+checkrooms()
+bookrooms()

Rooms

+roomno
+roomtype
+roomfacility
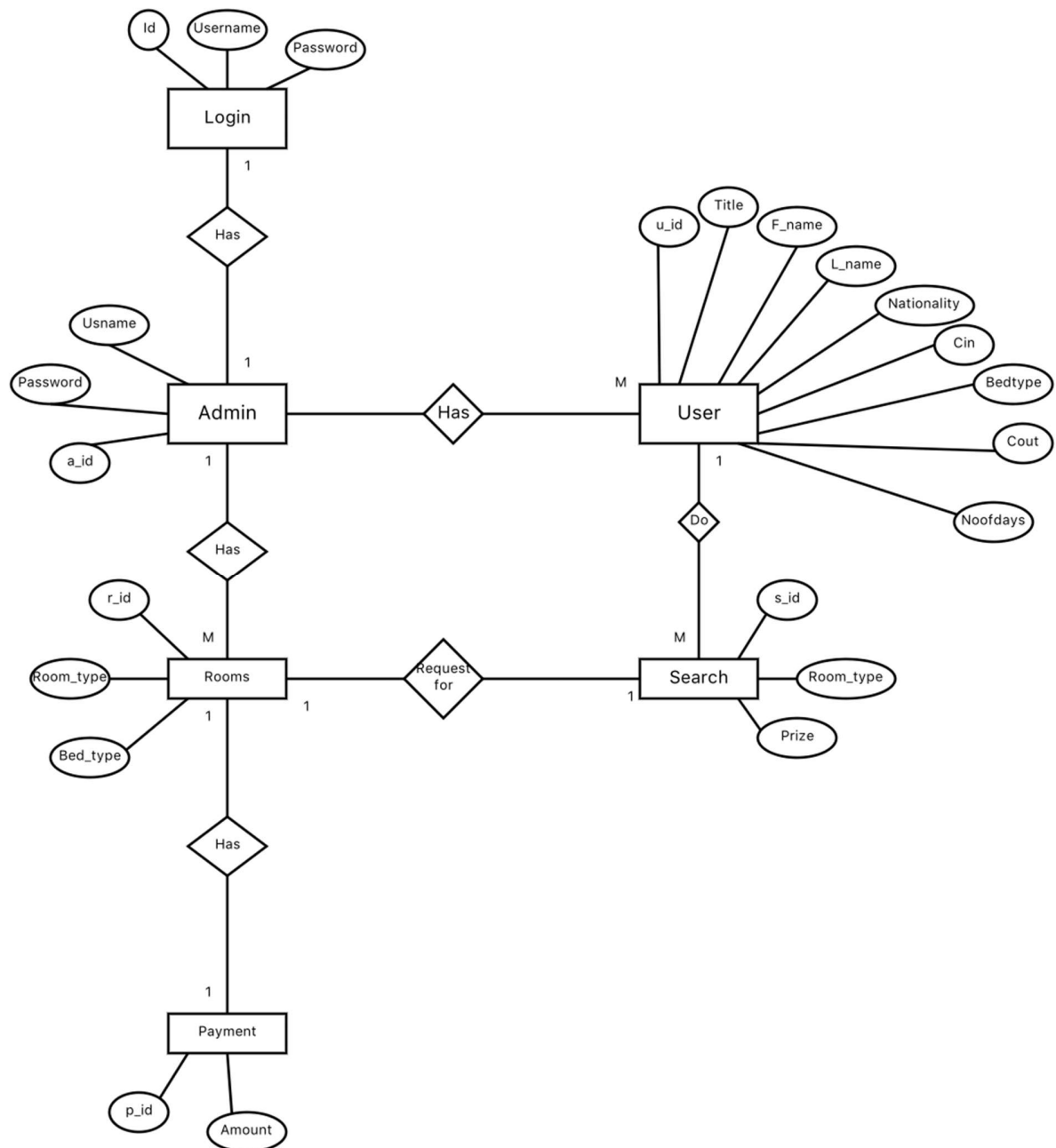
+reserveroom()
+cancelroom()
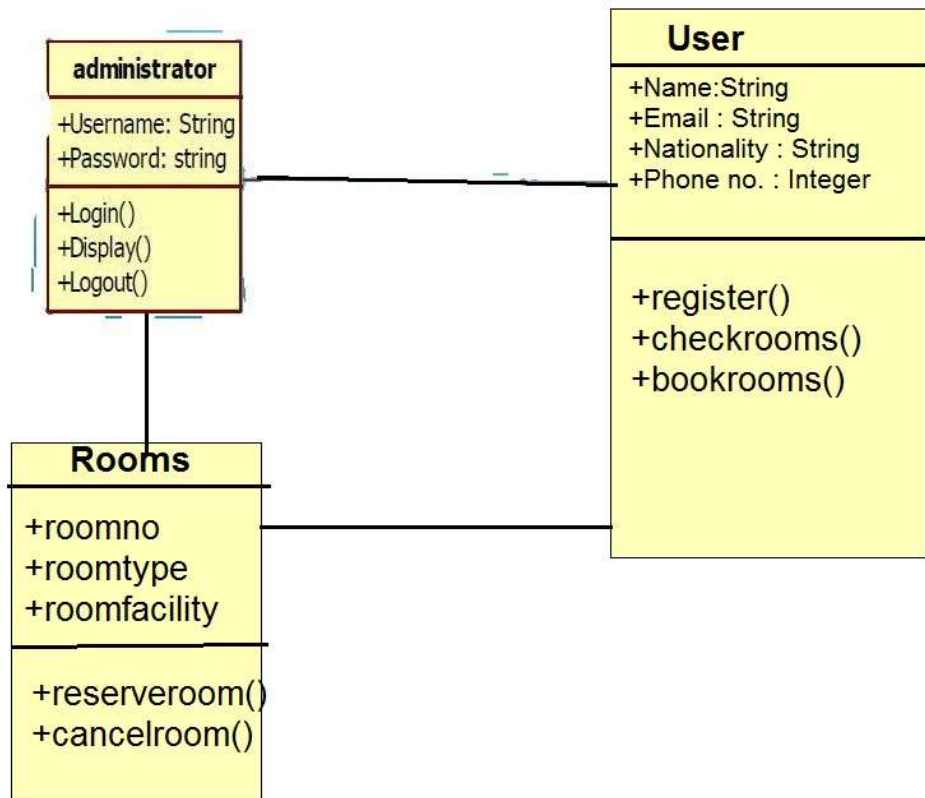
Use Case Diagram: -

Sequence Diagram: -

Customer | Room | Admin | Bill

1: Check the rooms ()

2: Fill the info()

3:Request Successfully submit()

4: Check the availibility ()

5: Room Booked()

6 : Print Receipt
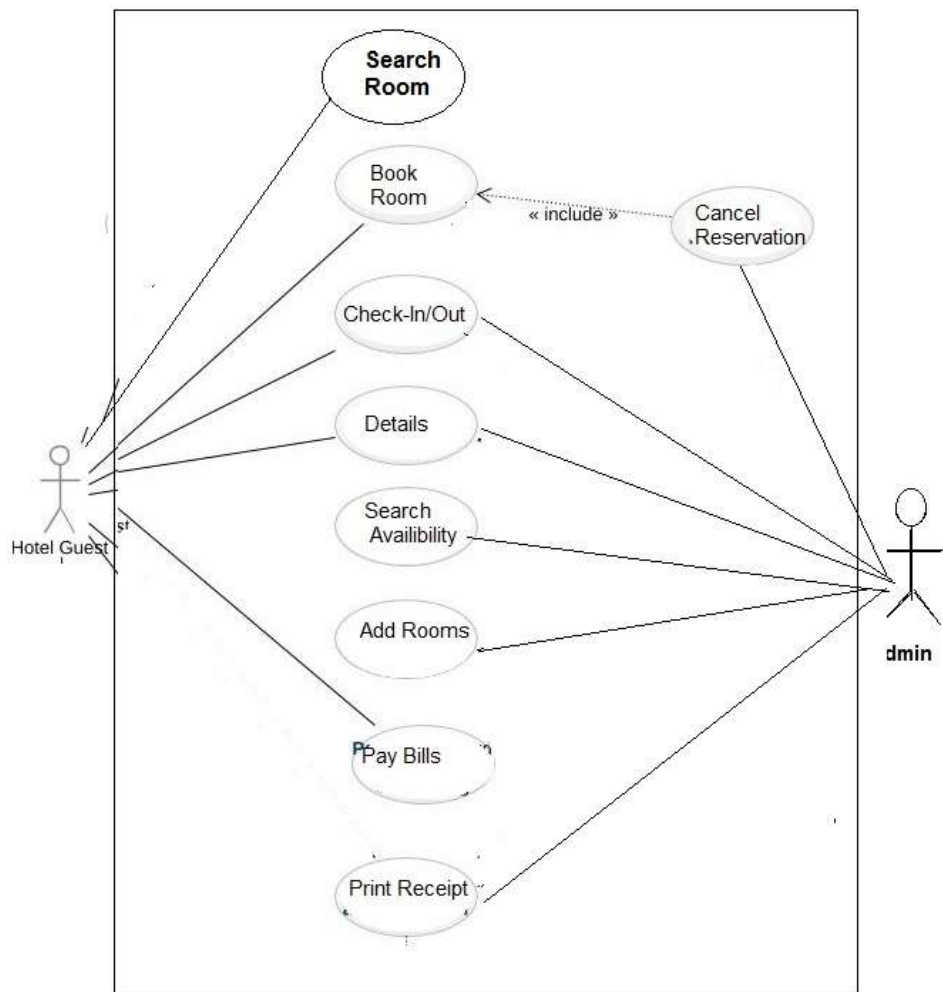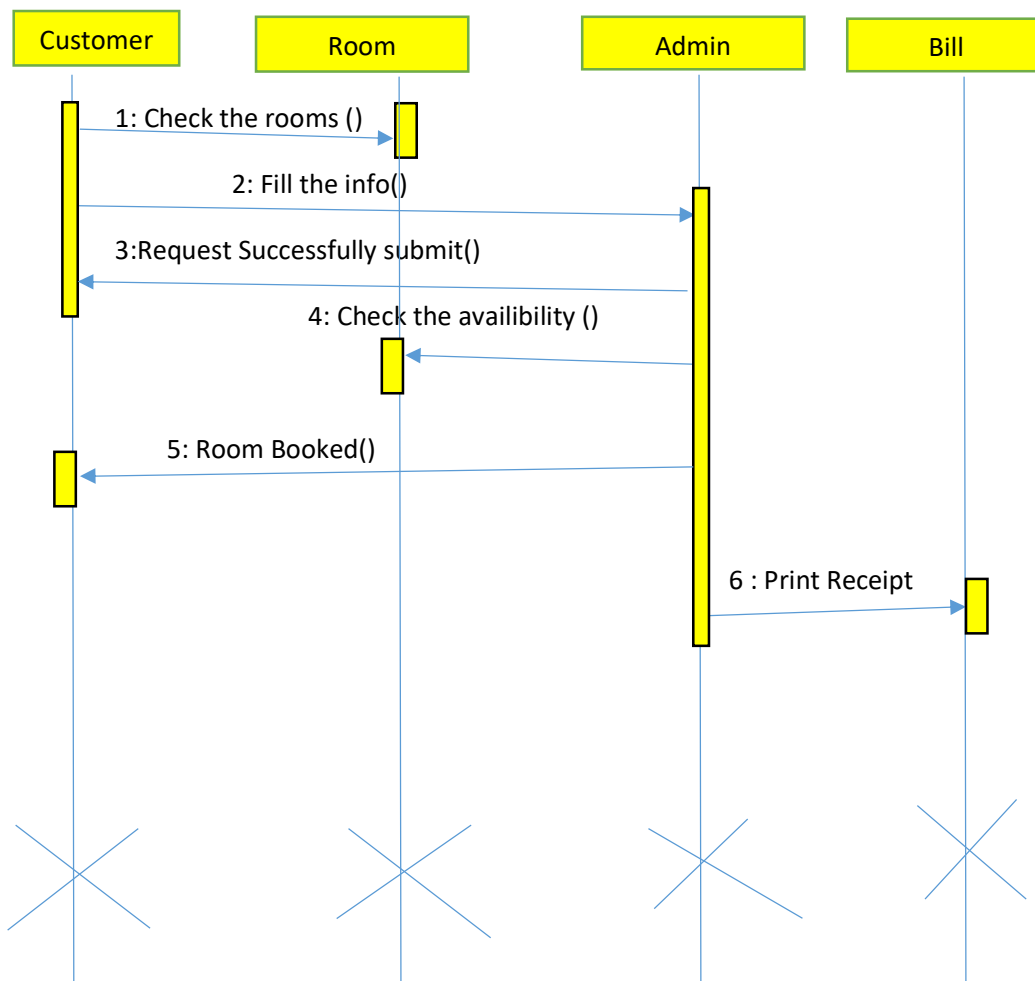
Activity Diagram: - (USER)
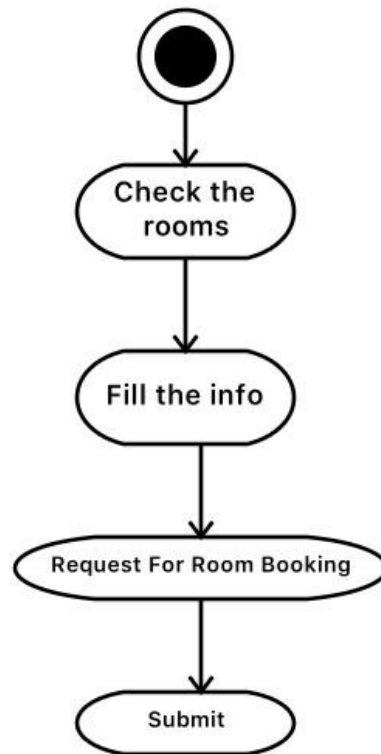
(ADMIN)
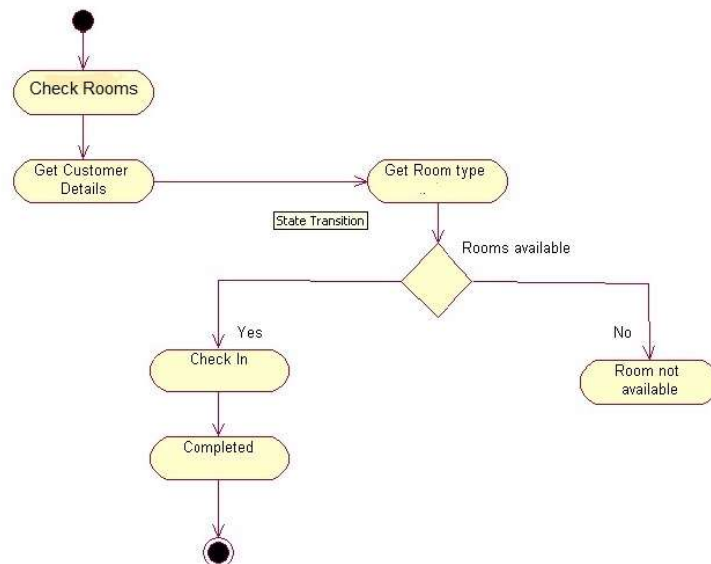
Deployment Diagram:-

DATA DICTIONARY
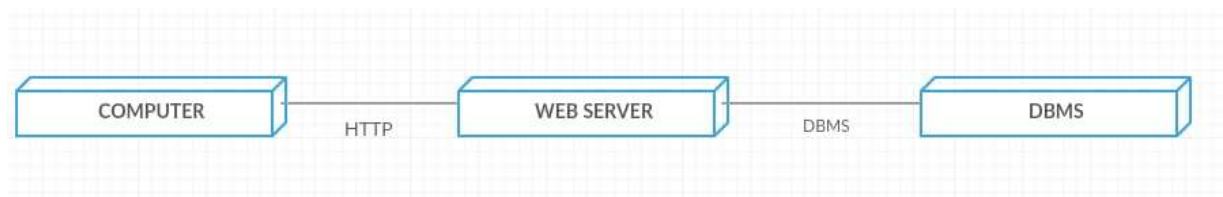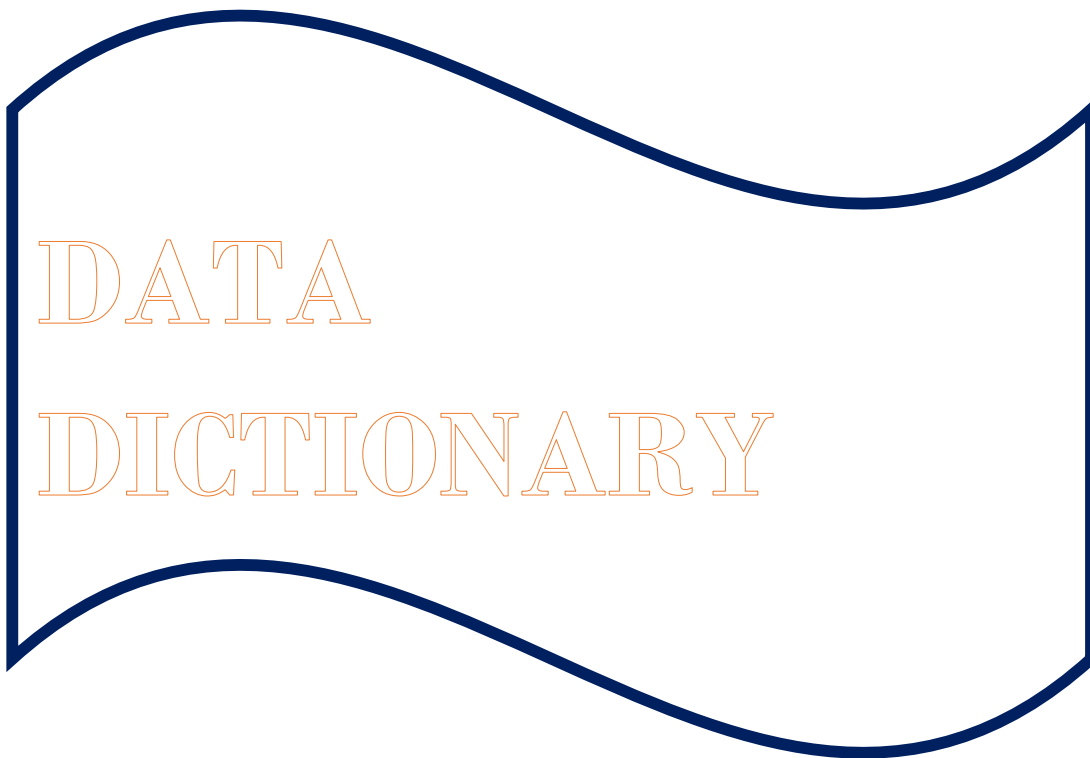
Table Name: Login

Attribute	Type	Key
id	Integer	Primary key
username	Varchar(15)	
password	Varchar(15)	

Table Name: Admin

Attribute	Type	Key
a_id	Interger	Primary key
username	Varchar(15)	
password	Varchar(15)	Not null

Table Name: User

Attribute	Type	Key
u_id	Integer	Primary key
Title	Text	
f_name	Text	
l_name	Text	
phone_no	Text	
Email	Varchar(30)	
Nationality	Text	
c_in	Date	
c_out	Date	
bed_type	Varchar(30)	
no_of_days	Date	
Country	Varchar(10)	

Table Name: Search

Attribute	Type	Key
s_id	Integer	Primary key
room_type	Varchar(15)	-
Prize	Float	-

Table Name: Room

Attribute	Type	Key
r_id	Integer	Primary key
room_type	Varchar(15)	-
bed_type	Varchar(10)	-
c_id	Integer	Foreign key

Table Name: Payment

Attribute	Type	Key
p_id	Integer	Primary key
Amount	Float	-
r_id	Integer	Foreign key

SCREENS

Main Page:-
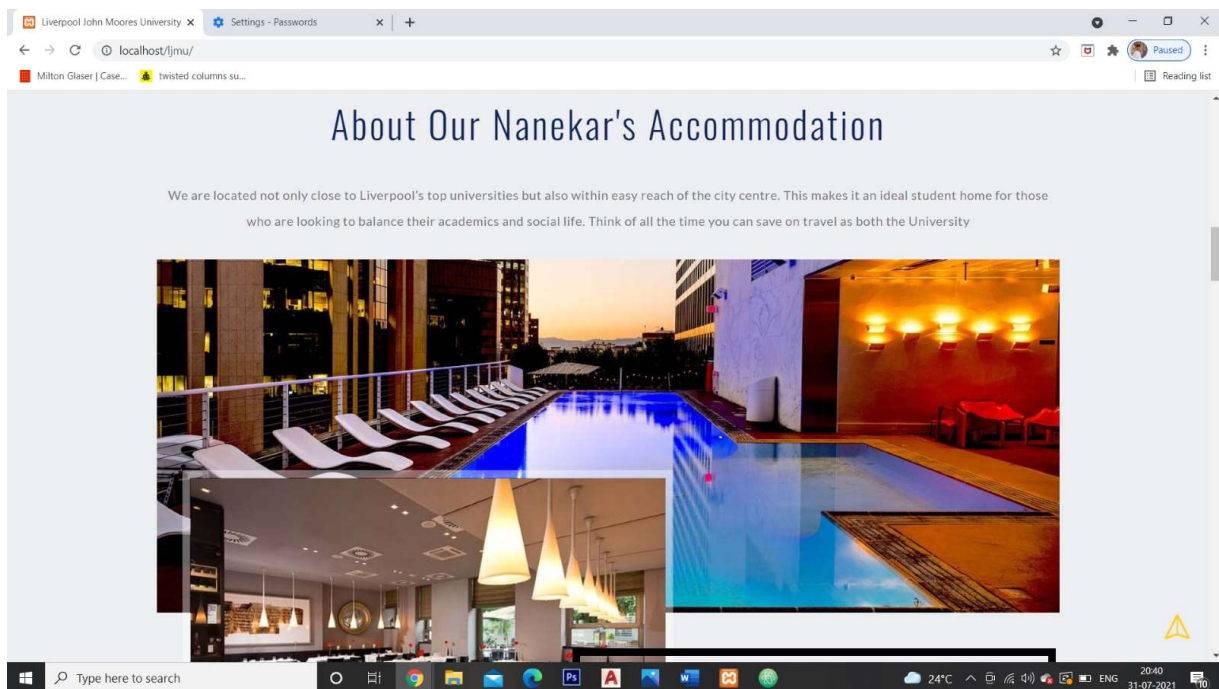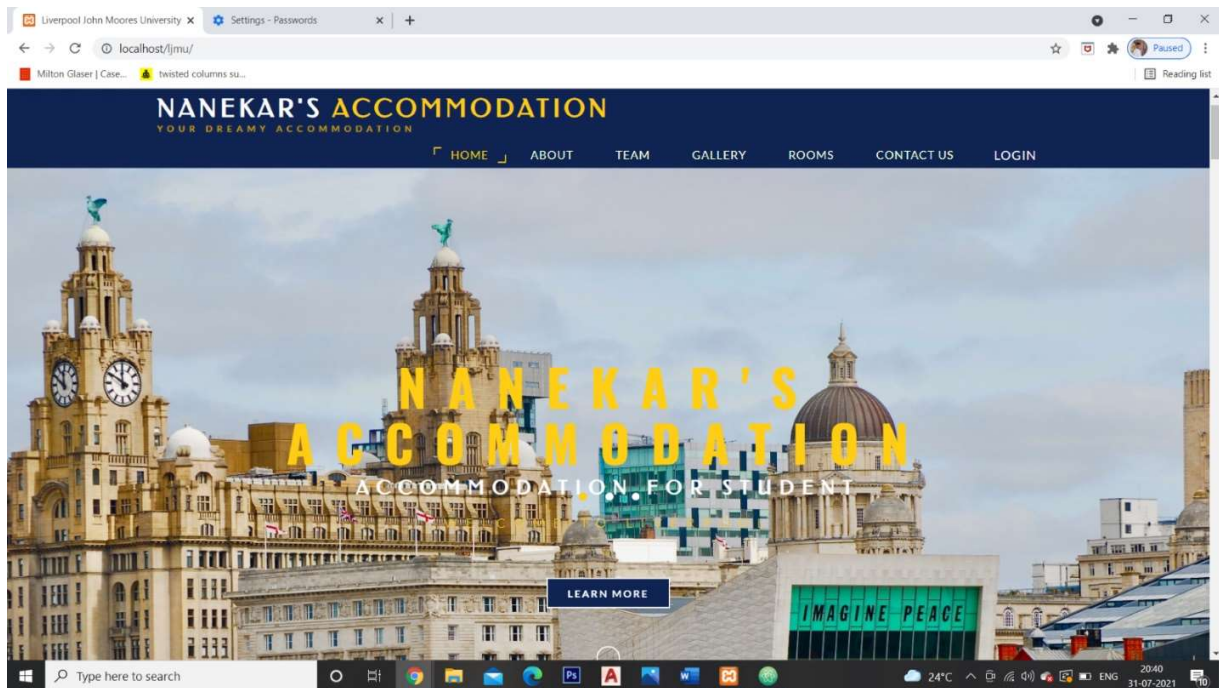
CUSTOMER ROOM BOOKING
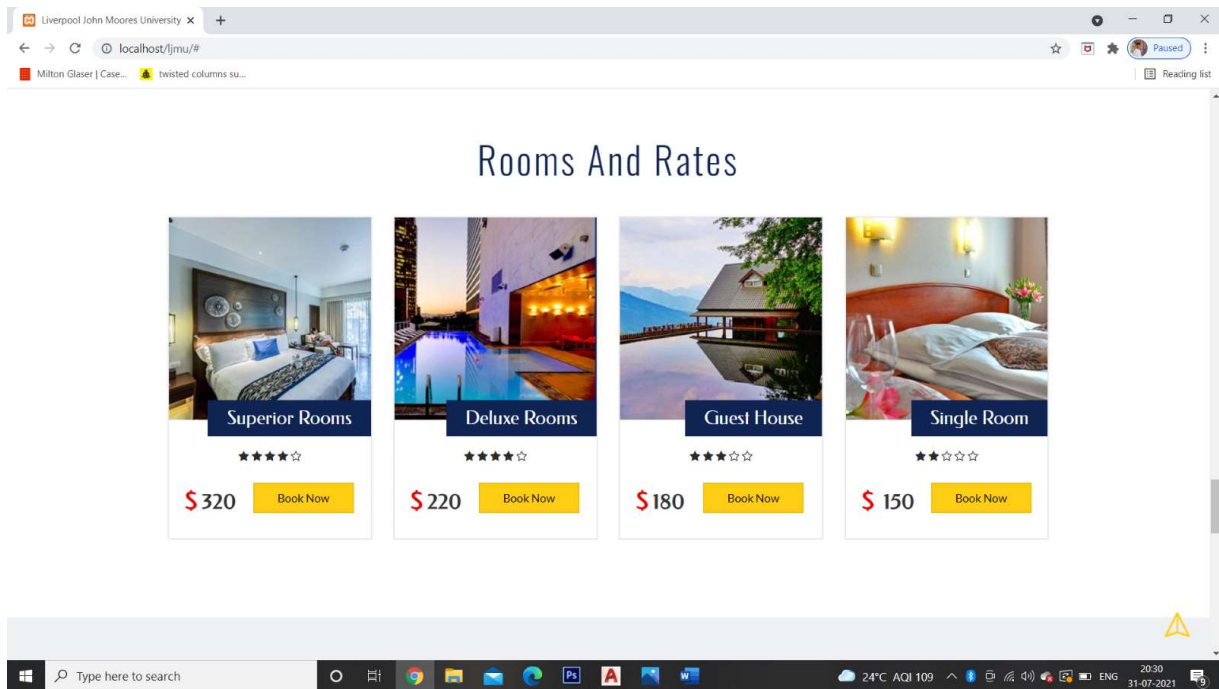
INQUIRY:-

CUSTOMER DETAILS:-

BOOKING COMPLITION:-

ADMIN LOGIN:-

RECORD OF CUSTOMERs

CONFIRMATION:-

PAYMENT DETAILS

PAYMENT RECEIPT

CODING

CUSTOMER DETAILS:-

In these images, I am using <div>, <label>, <option>, some php commands giving the access to users for entering the values. With the help of this commands, the customers can book hotel room as per their need by selecting different and appropriate values. By using <label> command it helps to highlight the information needs to fill and <option> command gives many options for users to select from the drop down. <div> function is used to make group of these all function in one body page.

Human Verification steps and Storing the data

```
<div class="col-md-12 col-sm-12">
    <div class="well">
        <h4>HUMAN VERIFICATION</h4>
        <p>Type Below this code <?php $Random_code=rand(); echo$Random_code; ?> </p><br />
<p>Enter the random code<br /></p>
<input  type="text" name="code1" title="random code" />
<input type="hidden" name="code" value="<?php echo $Random_code; ?>" />
<input type="submit" name="submit" class="btn btn-primary">
<?php
if(isset($_POST['submit']))
{
$code1=$_POST['code1'];
$code=$_POST['code'];
if($code1!="$code")
{
$msg="Invalide code";
}
else
{

    $con=mysqli_connect("localhost","root","","hotel");
    $check="SELECT * FROM roombook WHERE email = '$_POST[email]'";
    $rs = mysqli_query($con,$check);
    $data = mysqli_fetch_array($rs, MYSQLI_NUM);
    if($data[0] > 1) {
    echo "<script type='text/javascript'> alert('User Already in Exists')</script>";

    }

    else
    {
    $new ="Not Conform";
    $newUser="INSERT INTO `roombook`(`Title`, `FName`, `LName`, `Email`, `National`, `Country`, `Phone`, `TRoom`, `Bed`, `NRoom`, `Meal`, `cin`, `cout`,`stat`,`nodays`) VALUES ('$_POST[title]','$_POST[fname]','$_POST[lname]','$_POST[email]','$_POST[nation]
    if (mysqli_query($con,$newUser))
    {
    echo "<script type='text/javascript'> alert('Your Booking application has been sent')</script>";

    }
    else
    {
    echo "<script type='text/javascript'> alert('Error adding user in database')</script>";

    }
    }

    $msg="Your code is correct";
    }
    }
    ?>
</form>

        </div>
    </div>
</div>

        </div>
```

In this image, I am using $Random_code function for adding the feature of Human verification which will generate the random code for the user. User need to enter the code in the field to proceed further. After that I am using php commands for accepting and storing all the values enter by the customer to the SQL database. The values entered by the users need to be in the correct format and need to enter all the information to get successfully complete with the room book form. After successfully entering the information with the human verification code the details will get stored in data base and user will get a message of " Your Booking application has been sent."

```
<div class="container">

    <div id="login">

        <form method="post">

            <fieldset class="clearfix">

                <p><span class="fontawesome-user"></span><input type="text"  name="user" value="Username" onBlur="if(this.value == '') this.value = 'Username'" onFocus="if(this.value =
                <p><span class="fontawesome-lock"></span><input type="password" name="pass"  value="Password" onBlur="if(this.value == '') this.value = 'Password'" onFocus="if(this.val
                <p><input type="submit" name="sub"  value="Login"></p>

            </fieldset>

        </form>


    </div> <!-- end Login -->

    </div>
    <div class="bottom">  <h3><a href="../index.php">Nanekar's Accommodation HOMEPAGE</a></h3></div>

</body>
</html>

<?php
    include('db.php');

    if($_SERVER["REQUEST_METHOD"] == "POST") {
        // username and password sent from form

        $myusername = mysqli_real_escape_string($con,$_POST['user']);
        $mypassword = mysqli_real_escape_string($con,$_POST['pass']);

        $sql = "SELECT id FROM login WHERE usname = '$myusername' and pass = '$mypassword'";
```

```
    </div> <!-- end Login -->

    </div>
    <div class="bottom">  <h3><a href="../index.php">Nanekar's Accommodation HOMEPAGE</a></h3></div>

</body>
</html>

<?php
    include('db.php');

    if($_SERVER["REQUEST_METHOD"] == "POST") {
        // username and password sent from form

        $myusername = mysqli_real_escape_string($con,$_POST['user']);
        $mypassword = mysqli_real_escape_string($con,$_POST['pass']);

        $sql = "SELECT id FROM login WHERE usname = '$myusername' and pass = '$mypassword'";
        $result = mysqli_query($con,$sql);
        $row = mysqli_fetch_array($result,MYSQLI_ASSOC);
        $active = $row['active'];

        $count = mysqli_num_rows($result);

        // If result matched $myusername and $mypassword, table row must be 1 row

        if($count == 1) {

            $_SESSION['user'] = $myusername;

            header("location: home.php");
        }else {
            echo '<script>alert("Your Login Name or Password is invalid") </script>' ;
        }
    }
?>
```

In this session, I am using POST command, php command, include function and many
more. With the help of this function, the admin user can enter their credentials which is
already being saved in database or create by the admin user. So it needs to use correct
username and password to get login where admin user can get the access of the
Customers booking details, bills and many. The credentials used while login will check
by the SQL command and verify with database, if it is correct then it will direct login. If it
is wrong then user will get notification of wrong credential details.

```
142        <button class="btn btn-default" type="button">
143            New Room Bookings  <span class="badge"><?php echo $c ; ?></span>
144        </button>
145    </a>
146                </h4>
147            </div>
148            <div id="collapseTwo" class="panel-collapse in" style="height: auto;">
149                <div class="panel-body">
150                    <div class="panel panel-default">
151
152        <div class="panel-body">
153            <div class="table-responsive">
154                <table class="table">
155                    <thead>
156                        <tr>
157                            <th>#</th>
158                            <th>Name</th>
159                            <th>Email</th>
160                            <th>Country</th>
161        <th>Room</th>
162        <th>Bedding</th>
163        <th>Meal</th>
164        <th>Check In</th>
165        <th>Check Out</th>
166        <th>Status</th>
167        <th>More</th>
168
169                        </tr>
170                    </thead>
171                    <tbody>
172
173    <?php
174    $tsql = "select * from roombook";
175    $tre = mysqli_query($con,$tsql);
176    while($trow=mysqli_fetch_array($tre) )
177    {
178      $co =$trow['stat'];
179      if($co=="Not Conform")
180      {
181        echo"<tr>
182          <th>".$trow['id']."</th>
```

```
170                    </thead>
171                    <tbody>
172
173    <?php
174    $tsql = "select * from roombook";
175    $tre = mysqli_query($con,$tsql);
176    while($trow=mysqli_fetch_array($tre) )
177    {
178      $co =$trow['stat'];
179      if($co=="Not Conform")
180      {
181        echo"<tr>
182          <th>".$trow['id']."</th>
183          <th>".$trow['FName']." ".$trow['LName']."</th>
184          <th>".$trow['Email']."</th>
185          <th>".$trow['Country']."</th>
186          <th>".$trow['TRoom']."</th>
187          <th>".$trow['Bed']."</th>
188          <th>".$trow['Meal']."</th>
189          <th>".$trow['cin']."</th>
190          <th>".$trow['cout']."</th>
191          <th>".$trow['stat']."</th>
192
193          <th><a href='roombook.php?rid=".$trow['id']." ' class='btn btn-primary'>Action</a></th>
194        </tr>";
195      }
196
197    }
198    ?>
199
200                </tbody>
201            </table>
202
203        </div>
204    </div>
205    </div>
206    <!-- End  Basic Table  -->
207                </div>
208            </div>
209        </div>
210    <?php
```

Here I am using SQL, PHP, HTML commands for retrieving the information which was filled by the customer while filling the booking form. Admin can get all the information here once any new form is filled for room book. So SQL command will retrieve the data filled by user to this screen following the names, and other details. Also it gives access to admin to click on Action button for deciding to confirm or not confirm the booking of customer.

Here I am using the same SQL, PHP commands for retrieving the data stored in database of customer in the page so admin will get interface for the customer's data for checking all.

```php
<?php
        if(isset($_POST['co']))
        {
            $st = $_POST['conf'];


            if($st=="Conform")
            {
                $urb = "UPDATE 'roombook' SET 'stat'='$st' WHERE id = '$id'";

                if($f1=="NO" )
                {
                    echo "<script type='text/javascript'> alert('Sorry! Not Available Superior Room ')</script>";
                }
                else if($f2 =="NO")
                {
                    echo "<script type='text/javascript'> alert('Sorry! Not Available Guest House')</script>";

                }
                else if ($f3 == "NO")
                {
                    echo "<script type='text/javascript'> alert('Sorry! Not Available Single Room')</script>";
                    else if($f4=="NO")
                    {
                    echo "<script type='text/javascript'> alert('Sorry! Not Available Deluxe Room')</script>";
                    }
                    else if( mysqli_query($con,$urb))
                    {
                        //echo "<script type='text/javascript'> alert('Guest Room booking is conform')</script>";
                        //echo "<script type='text/javascript'> window.location='home.php'</script>";
                        $type_of_room = 0;
                        if($troom=="Superior Room")
                        {
                            $type_of_room = 320;

                        }
                        else if($troom=="Deluxe Room")
                        {
                            $type_of_room = 220;
                        }
                        else if($troom=="Guest House")
                        {
                            $type_of_room = 180;
                        }
                        else if($troom=="Single Room")
```

Also with this admin will also get the details of room how many rooms are available for each type of rooms. Admin will get option for selecting and deciding to confirm the room book by checking room availability and if not then can choose not confirm to cancel the room book. Once, admin clicks on confirm then all the information will get stored to the database as confirmed room book.

```php
                <div class="panel panel-default">
                    <div class="panel-body">
                        <div class="table-responsive">
                            <table class="table table-striped table-bordered table-hover" id="dataTables-example">
                                <thead>
                                    <tr>
                                        <th>Name</th>
                <th>Room type</th>
                                        <th>Bed Type</th>
                                        <th>Check in</th>
                <th>Check out</th>
                <th>No of Room</th>
                <th>Meal Type</th>

                                        <th>Room Rent</th>
                <th>Bed Rent</th>
                <th>Meals </th>
                <th>Gr.Total</th>
                <th>Print</th>


                                    </tr>
                                </thead>
                                <tbody>
        <?php
            include ('db.php');
            $sql="select * from payment";
            $re = mysqli_query($con,$sql);
            while($row = mysqli_fetch_array($re))
            {

                $id = $row['id'];

                if($id % 2 ==1 )
                {
                    echo "<tr class='gradeC'>
                    <td>".$row['title']." ".$row['fname']." ".$row['lname']."</td>
                    <td>".$row['troom']."</td>
                    <td>".$row['tbed']."</td>
                    <td>".$row['cin']."</td>
                    <td>".$row['cout']."</td>
                    <td>".$row['nroom']."</td>
                    <td>".$row['meal']."</td>
                    <td>".$row['ttot']."</td>
                    <td>".$row['mepr']."</td>
                    <td>".$row['btot']."</td>
                    <td>".$row['fintot']."</td>
                    <td><a href=print.php?pid=".$id ." <button class='btn btn-primary'> <i class='fa fa-print' ></i> Print</button></td>
                    </tr>";
```

Here the function are used to get the payment details for the customer where the room booking is confirmed from the database. In the format of room type, check out/check in date, and other information by using the SQL, php commands. With this admin will also get chance to click on print to generate customers bill.

```php
<?php
ob_start();
include ('db.php');

$pid = $_GET['pid'];

$sql ="select * from payment where id = '$pid' ";
$re = mysqli_query($con,$sql);
while($row=mysqli_fetch_array($re))
{
    $id = $row['id'];
    $title = $row['title'];
    $fname = $row['fname'];
    $lname = $row['lname'];
    $troom = $row['troom'];
    $bed = $row['tbed'];
    $nroom = $row['nroom'];
    $cin = $row['cin'];
    $cout = $row['cout'];
    $meal = $row['meal'];
    $ttot = $row['ttot'];
    $mepr = $row['mepr'];
    $btot = $row['btot'];
    $fintot = $row['fintot'];
    $days = $row['noofdays'];



}

            $type_of_room = 0;
            if($troom=="Superior Room")
            {
               $type_of_room = 320;

            }
            else if($troom=="Deluxe Room")
            {
               $type_of_room = 220;
            }
            else if($troom=="Guest House")
            {
               $type_of_room = 180;
            }
            else if($troom=="Single Room")
            {
               $type_of_room = 150;
```

```html
<header>
  <h1>Invoice</h1>
  <address >
    <p>Hanekar's Accommodation</p>
    <p>1 Paddington, Edge Hill,<br>Liverpool L7 3RG,<br>United Kingdom.</p>
    <p>(+91) 9130132118</p>
  </address>
  <span><img alt="" src="assets/img/n.jpg"></span>
</header>
<article>
  <h1>Recipient</h1>
  <address >
    <p><?php echo $title.$fname." ".$lname ?> <br></p>
  </address>
  <table class="meta">
    <tr>
      <th><span >Invoice #</span></th>
      <td><span ><?php echo $id; ?></span></td>
    </tr>
    <tr>
      <th><span >Date</span></th>
      <td><span ><?php echo $cout; ?> </span></td>
    </tr>

  </table>
  <table class="inventory">
    <thead>
    <tr>
      <th><span >Item</span></th>
      <th><span >No of Days</span></th>
      <th><span >Rate</span></th>
      <th><span >Quantity</span></th>
      <th><span >Price</span></th>
    </tr>
    </thead>
    <tbody>
    <tr>
      <td><span ><?php echo $troom; ?></span></td>
      <td><span ><?php echo $days; ?> </span></td>
      <td><span data-prefix>$</span><span ><?php  echo $type_of_room;?></span></td>
      <td><span ><?php echo $nroom;?> </span></td>
      <td><span data-prefix>$</span><span><?php echo $ttot; ?></span></td>
    </tr>
    <tr>
      <td><span ><?php echo $bed; ?> Bed </span></td>
      <td><span ><?php echo $days; ?></span></td>
      <td><span data-prefix>$</span><span ><?php  echo $type_of_bed;?></span></td>
      <td><span ><?php echo $nroom;?> </span></td>
      <td><span data-prefix>$</span><span><?php echo $btot; ?></span></td>
    </tr>
```

Once, admin click on print option it will redirect to the print.php for generating the Invoice of the customer to view by admin. Here all the information are retrieve from the database and arrange in the given format by checking the price of the respective rooms and showing the correct value of the room in Invoice and calculating the price for certain days selected by customers.

END