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Hotel Sky Dragons

Project Proposal

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Submitted by:

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|------------------------|------------|
| 1. Thisaranga B.V.Y.L. | IT20640170 |
| 2. Pulasinghe T.K. | IT20641474 |
| 3. Bandara R.M.P.C. | IT20640002 |
| 4. Sithmini L.W.E. | IT20656874 |
| 5. Weerasinghe M.L.L. | IT20664862 |
| 6. Perera M.L.D. | IT20661410 |
| 7. Kumari K.T.C.R. | IT20172046 |
| 8. Hansika A.G.D.R. | IT20639976 |

Submitted to:

Mr. S.M.B. Harshanath

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Introduction

Hotel Background

- "Hotel Sky Dragons" is a 5-star hotel that has recently been started by a few veterans in the industry with high demand. Unfortunately, the hotel's existing manual system has some problems, which the hotel has identified. After gathering data from various hotels that used both manual and automated management systems, the hotel determined that the hotel did indeed require a computerized management system. Hence, this system was carefully designed to assure the system's optimal efficiency at the hotel.
- Our hotel offers the following services.
 - Rooms with all amenities.
 - High standard customer service.
 - A restaurant that serves delicious meals at a reasonable price.
 - a perfect place for all types of occasions.
 - special offers and packages.
 - All other services are also available at the hotel. Such as a pool, bar, and spa.
- We hope this system will undoubtedly help the customers, hotel management, staff members in managing their functions and bring the hotel to its former glory.



Problems

- The main problem is that they do not have an IT based system to run their operations or to keep their records on each section. Currently they are following a manual process to handle each and every task in the hotel by maintaining books. So that following problems are occurred during management of this hotel
- Customer feedback cannot be received by the management as per their requirement, since this system is a manual system.
- Customers cannot get a better understanding about the facilities offered by the hotel without arriving at the hotel premises.
- As well as there is higher time consumption when storing data related to the customer, employee and supplier details. Sometimes there were data misplacing and redundant also.
- Staff does manual entry for visitors which is extremely difficult to manage at peak times or vacation periods
- The reservation system in this hotel is done over the phone. It takes more time and costs more money

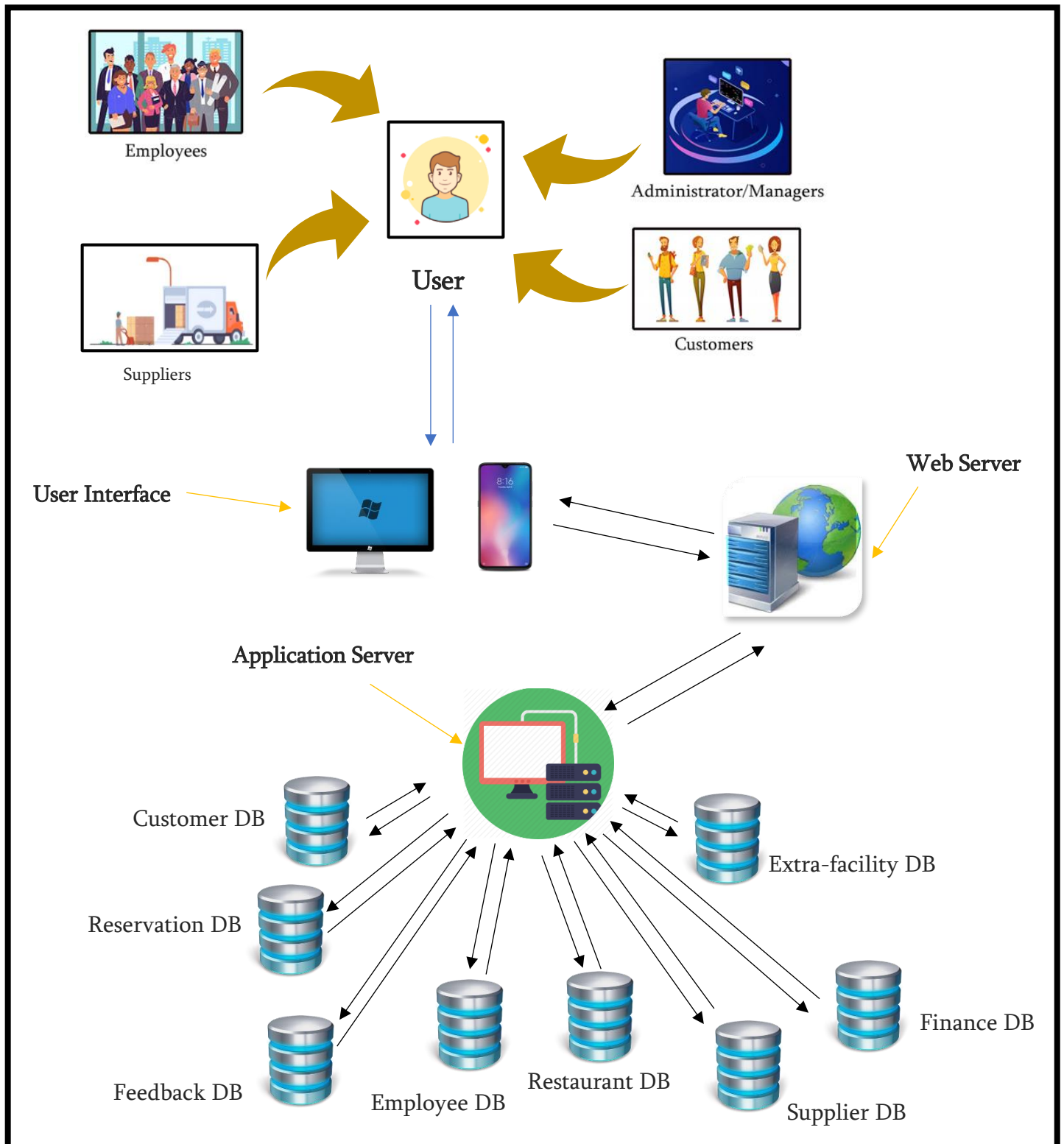
Solutions

- We are developing an automated hotel management system in this software, so no longer needs to be done manually.
- Efficiently handle report generation and hotel management details.
- It provides a database to store all hotel, supplier and guest information that helps administrators organize their data efficiently.

Benefits

- This system is very useful for customers and hotel management.
- Ability of connecting both locals and foreigners.
- Labor cost is reduced because of automation.
- Customer can save their time and money.
- Easy to access the system from anywhere through any device.
- All users can use this system very easily.
- Company can increase their revenue.
- Customer can get information about the hotel without arriving to the hotel premises

System overview



Functions

1. Room Reservation management

- This function is providing a more reliable service to the customer. That is the main purpose of this function.
- The local customers can reserve a room through online or visit the hotel reception.
- When a customer makes a room reservation, he/she can choose check-in and check-out date and time and also number of guests according to the selected package by him/her.
- Also, he/she can select room type as well according to his/her budget from one of our various room packages.
- As the last part of the room reservation, he/she can make the payment via online. If the reservation is success, he/she will receive a verification email from the hotel.
- According to room reservation management the room reservation manager.
- Through this function,
 - Customer can make a reservation,
 - Customer can update his/her reservation
 - Customer can view his/her reservation
 - Customer can cancel his/her reservation via online.

- Admin can launch new packages to the system
 - Admin can update existing packages
 - Admin can remove existing packages
 - Admin can view reservations that were made by customers.
 - Admin keep recodes of room details, guest details and room reservation details.
 - Admin can check the availability using customer records. After that, availability of rooms will be displayed in the hotel web site.
 - Admin generate daily reservation report from the room reservations.
 - Admin generate monthly report regarding the best booking rooms according to the total reservation count
- “Reservation DB” is the main database for the room reservation management. It will include the room and room package tables.



2. Restaurant management

- The restaurant management function helps to keep all aspects of your dining establishment running smoothly.
- This function is connected with all restaurant activities.
- Customer can book the tables and make payment in the restaurant through the restaurant web page.
- According to the restaurant management the restaurant manager can launch new food and beverage packages and it will display on the website if the restaurant manager intends to make any changes he or she can update or delete product details from the system.
- Restaurant manager keeps records of the restaurant and it will be stored in the restaurant database.
- Restaurant manager can generate a restaurant monthly report and he can send it to the hotel management, also the manager can edit or delete the report if needed.



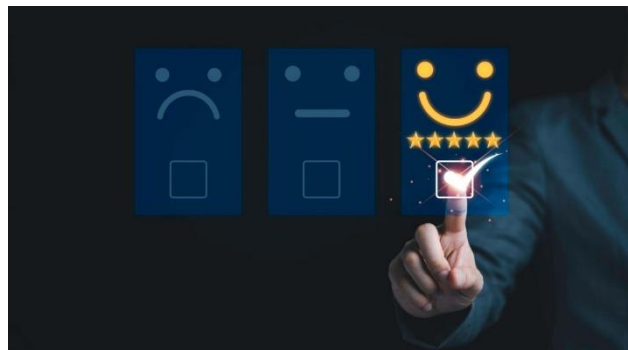
3. Employee management

- This function maintains all the employee details and employee related data. It has two main persons.
- First person is administrator.
- Second person is HR manager.
- Therefore, administrator and HR manager can be aware of employees' details and their performances.
- Through this function,
 - Admin can create, update, view and delete employee details.
 - Employees can view their own profile with a given username and password.
 - Employees can update their basic details and profile picture on their profile
 - HR manger can generate employees' reports.
 - The employees' details page can be used to get attendance, salary and basic details of employees.
 - Employee details reports are able to generate once a month.



4. Feedback management

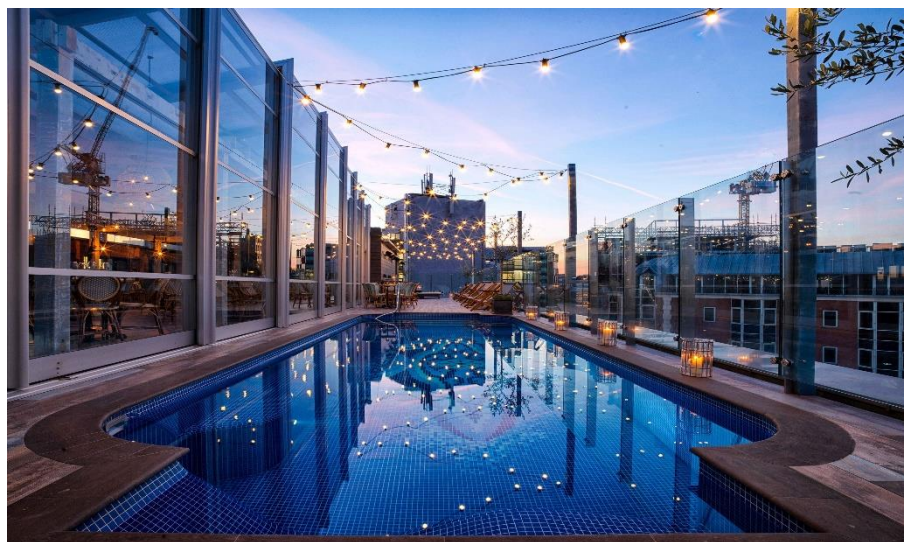
- Feedback management is one of the important components for any business process as it is one of the best ways service companies can improve their service or product which will support to boost the success of the business.
 - Feedback management function is mainly involving by the admin and the customer.
 - In customer part customer able to place a feedback which he/she already experienced throughout the facilities in our hotel and also, system provides rating option. In there, customer can add a rate to the feedback.
 - After customer placed a feedback customer can view all the feedback on the feedback page and also customer can perform edit, update and delete crud functions on his/her own feedback according to customer's like.
 - As an administrator part administrator can view feedbacks, reply for the feedback and generate monthly feedback report.
 - Finally, the administrator analyzed the feedback report and reports the issues to the relevant parties.



5. Extra- facility management

- The Extra-Facility management function is used to manage the extra facilities in the hotel
- The hotel Sky Dragons has some extra facilities for their customers such as Mini Bar, Pool, Spa and Club
- In this function, display all the details about the extra facilities and the all the packages according to the relevant facility
- When any customer visit to the extra facility page, customer can view all details of the facilities that are provided by the hotel and the facility packages.
- This extra facility reservations can be permitted only for registered customers.
- If any customer wants to reserve some extra facility, then he/she should register to the system
- Then customer can select any kind of facility according to his/her desire.
- After that customer can select his/her preferred package for that relevant facility.
- Then the package added to a reservation list.

- Through this function,
 - Customer can reserve any of above facilities
 - Customer can update their reservation
 - Customer can view their reservation
 - Customer can cancel their reservation if he/she wants
- Once who login as an Extra-Facility management admin, that admin can perform the several actions,
 - Admin can create a new package
 - Admin can update existing package
 - Admin can delete existing package
 - Admin can retrieve the list of extra facility reservations list.
 - Admin can generate report regarding best booking facilities according to the customer reservations
 - Admin can Generate a monthly report including the summery of selected packages and the total reservations



6. Customer management

- In this function, customers can register to the system after filling their name, email, NIC, contact number, address, etc. in the registration form. After registering, the system sends a verification email to the customer with their registered details. After that, they can log in to the system using valid login credentials otherwise, they will not be able to log in to the system, and only the registered customers are allowed to make reservations.
- So, registered customers can create, view, update and delete their profiles, and all these details are stored in the customer database.
- Through this function,
 - The administrator has the responsibility to ensure that all the customers are treated with a high standard of customer service. So, he can perform limited functionalities such as,
 - Registering new guests to the system.
 - Sending verification emails to their email accounts.
 - Managing their profiles.
 - View and update their profiles.
 - Remove inactive customers.
 - Furthermore, the administrator can use the search bar to look up the information regarding the registered customers, and also, he can generate monthly reports about registered customers.
 - In addition to the above functionalities, the administrator can handle customers' complaints and queries, and also, he can assign hotel guiders to the customers.

7. Supplier management

- Through this function all the suppliers can register to the website by giving the relevant details and from this function suppliers past records are also maintained. This function managers all the details about food ingredients and furniture.
- Using this function,
 - Suppliers can insert their details in to the system
 - Suppliers can view and update their private details. When registering, suppliers should provide details such as,
 - ✓ Name
 - ✓ NIC Number
 - ✓ Phone number
 - ✓ Address
 - ✓ Business type
 - Admin can retrieve the list of suppliers past records.
 - Admin can add, update and remove suppliers.
 - Admin can remove past records of suppliers.
 - Admin can generate reports with the relevant details of the suppliers.
- From this function it is possible to place orders to the suppliers for materials and manage the payment. Monthly reports are generated according to the details of the suppliers, orders and supplier payments.

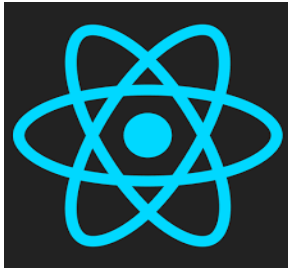
8. Financial Management

- Financial management function is the methodology and software that hotel sky dragons uses to oversee and govern its income, expenses, and assets with the objectives of maximizing profits and ensuring sustainability.
- Every department of the hotel keep going management process to handle income-expenditure records of that section. It is the responsibility of the financial management function is in charge of gathering all the details from each sector and creating the final record for the entire hotel.
- The financial management is not only responsible for monitoring these records, but also, it is responsible for calculating & loss and generating financial reports by analyzing income and expenditure records and profits.
- Furthermore, above functionalities, the financial Department of the hotel is responsible for deciding the basic salary amount according to the financial state of the hotel. There will be a record of base salary amounts according to the designation and the level of employees. It makes it easier e to make changes in the future.
- Financial manager is handled by this function .and financial manager have access to add, delete, update and read this record.



Tools and Technologies

- In this project we are using the MERN stack to develop the web application

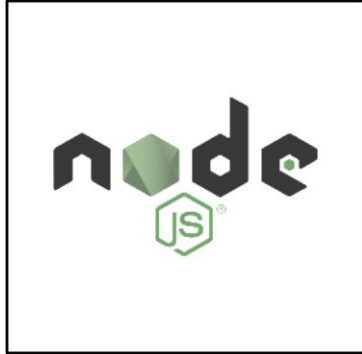


React is a JavaScript library that we use to develop the **front end** of the web application

- React JS is a free and open-source front-end JavaScript library.
- It is a platform can be used as a base in the development of mobile applications.
- It's fast, scalable, flexible, powerful, and has a robust developer community that's rapidly growing.



Visual studio code is the **IDE** we use to develop the web application



Node JS is the main language that we use to develop the **sever environment**

- Node JS is free and open-source server environment.
- It runs on different platforms like Windows, Linux, Mac OS X, UNIX, etc.
- It uses JavaScript on the server.



MongoDB is the **database** program use for this web application

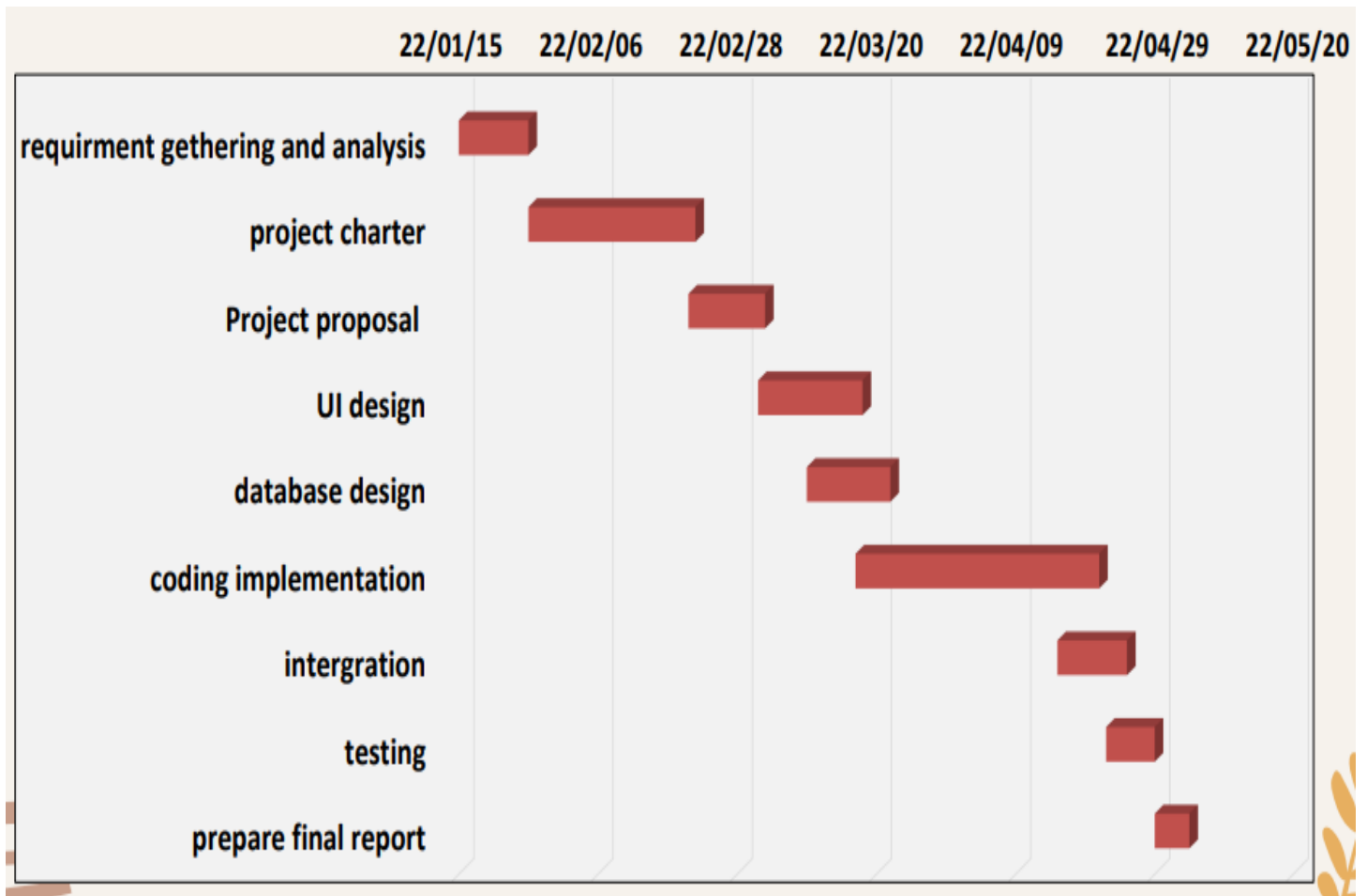
- Mongo DB is an open-source document-oriented database program.
- It classified as a NoSQL database program
- This is written in C++
- Mongo DB is developed by Mongo DB Inc.



Express is the framework that we use to develop the **back end** of the web application

- Express JS is a free open-source software, and it is a back-end web application framework for Node JS
- It is written in JavaScript
- This is used for designing and building web applications.

Project Management Plan



Work Distribution

Name	IT Number	Distribution
Thisaranga B.V.Y.L.	IT20640170	Room Reservation Management
Pulasinghe T.K.	IT20641474	Extra-facility Management
Bandara R.M.P.C.	IT20640002	Feedback Management
Sithmini L.W.E.	IT20656874	Financial Management
Weerasinghe M.L.L.	IT20664862	Restaurant Management
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