DBMS project proposal

**Objectives**

The purpose of this module is to build an effective Theme-Park Management system for the users to book tickets for different theme parks.

**Overview**

The theme park management system helps the users to book tickets from a wide range rides on different theme parks belonging to one resort. The main concept of this website is for an individual to get tickets and reserve certain rides. The information related to this website is stored in a relational database, NOSQL, as a large number of people go to, and reserve several rides each day. It will have an admin who keeps track of all the information and the database.

In this website we have 2 types of users. Platinum Users visit the theme parks on a regular basis (Example: 2 or 3 times per month), while the other category is Tourist User. Both these users are given different options. For first time users there is a Registration page where they can register to book tickets. Platinum users have premium options like, they can elect to an entire ride just for themselves. They can choose from a large variety of cuisines also do get discounts on food items and rides on a regular basis, can book a lounge or a private resort. The visitors cannot enjoy these privileges, all they can do is select a ride or a meal plan and book tickets accordingly. Both users can give a feedback (rating) on the website and the theme park once they finish their thrilling experience. Users can cancel their bookings anytime.

The website also has features which show the users different categories of rides like water rides, theme rides, most popular, most scariest.

**Description:**

**1. Admin Platform:**

Admin will store all information regarding rides, users and meals. Admin can add, delete or edit ride information (and information on restaurants). Admin can see total number of ticket sales, reservations, and total revenue.

2. **Account platform:**

Accounts can select which theme park they want to go to in the resort. Afterwards, the account platform allows users to view a list of rides and restaurants, and their respective descriptions/ratings. The users can click on a ride and buy tickets. Additionally, Platinum Users will be able to reserve places in rides and restaurants, as well as get discounts.

**Background:**

In todays fast moving world every great website has something unique. We as a group were looking into some of the possibilities out in the real world where the development is required and we have noticed that ,In these websites there are problems such as

1. The data is not specified clearly.
2. Improper users information.
3. Inaccurate information of person being requested given to the wrong user.

**Business drivers:**

Solutions to the above business problems are that, the administrator should always be ready to face the worst of situations like too many requests to process. The laws that define the website should always be followed by the user. Reasonable ticket prices and continuous deals will keep the users attracted to the website and drives them to come back and book tickets from our website.

The main motive is to make the website simple and accessible to every age group. We have also observed that there are websites which offer ticket booking to a particular theme park. The benefit of implementing the project is that this website helps to book tickets, to various theme parks.

**Project Scope:**

The scope of the theme park Project is to design, build, and implement a MySQL Database based on which the theme park website works. Various MySQL permissions will be granted to update, manage, and view certain technologies. The scope of this project includes collection of requirements, design and implementation of the database.

Functionality:

**General Functionalities**

* Create Accounts.
* Buy Tickets for different rides.
* Provide list of different ride types (aquatic, roller coaster, puppet shows…)
* Reserve seating on each ride.
* Reserve seats at restaurants.
* Buy Meal Plan.
* Change status of user (Regular or Platinum), depending on extra cost and number of visits to qualify.
* Rating of Rides: Each user can provide a comment and rate the ride from 1-10.
* Admin portal. This would allow admin to view all reporting features and do maintenance, such as editing the theme park and ride information.

**Reporting Functionalities**

* The system will provide a series of options for reporting:
  + Total number of accounts.
  + Total number of accounts created this month.
  + Total number of users on each ride.
  + Revenue from each ride (ticket price x quantity)
  + Listing of all rides (from most popular to least popular based on rating)
  + Listing of all rides (from most popular to least popular based on usage)
  + Most sold food item.
  + Number of Platinum accounts vs regular accounts.

**Security Functionalities**

* Have two databases. One for passwords and another one for the rest of the account information.
* Partitioning of tables: Some sensitive data could be stored in two tables (like, credit card information).
* Implementation of server side validation for account creation (to protect database).
* Admin feature will allow master accounts to delete or block users

**Usability**

* User interface will be responsive (by using bootstrap front end framework).
* Forms will include sufficient information to help users complete the form without triggering validation (Input masks).