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## Islamic Development Bank-Bangladesh Islamic Solidarity and Educational Wakf

## (IsDB-BISEW)

# **IT Scholarship Programme**

**Project Name: Railway Reservation System**

## Submitted To:

Syed Zahidul Hassan   
Consultant

IDB-BISEW IT Scholarship

Umme Aimun Nesa

Technical Trainer (.Net)

IDB-BISEW IT Scholarship

**Submitted By:**

|  |  |  |
| --- | --- | --- |
| NAME OF STUDENT | : | MD. NIZAM UDDIN TUHIN |
| TRAINEE ID | : | 1272482 |
| BATEH | : | WADA/USSL-M/54/01 |

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PROJECT DESCRIPTION

**This project is about creating the database about Railway Reservation System.**

The railway reservation system facilitates the passengers to enquire about the traits available on the basis of source and destination, booking and cancellation of tickets, enquire about the status of the booked ticket, etc. The aim of case study is to design and develop a database maintaining the records of different trains, train status, and passengers. The recced of train includes its number, name, source, destination, and days on which it is available, whereas recced of train status includes dates for which tickets can be booked, total number of seats available, and number of seats already booked.

**List of Assumption Since the reservation system is very large in reality, it is not feasible to develop the case study to that extent and prepare documentation at that level. Therefore, a small sample case study has been created to demonstrate**

the working of the reservation system. To implement this sample case study, some assumptions have been made, which see as follows

**Functionalities provide by Railway Reservation System are as Follows:**

1. The number of trains has been restricted to 5.

2. The booking is open only for next seven days from the current date.

3. Only two categories of tickets can be booked, namely, AC and General.

4. The total number of tickets that can be booked in each category (AC and General) is 10.

5. The total number of tickets that can be given the states of waiting is 2.

6. The in-between stoppage stations and their bookings are not considered.

List of trains has to be maintained. Detailed Passenger information is to be maintained in the booking procedure, the train number, train date, and category we read from the passenger. On the basis of the values provided by the passenger, corresponding record is retrieved from the Train Status. If the desired category is AC, then total number of AC seats and number of booked AC seats are compared in order to find whether ticket can be booked or not. Similarly, it can be checked for the general category. If ticket can be booked, then passenger details are read and stored in the Passenger table. In the cancellation procedure, ticket ID is read from the passenger and corresponding record is searched in the Passenger. If the record exists, it is deleted. After deleting the record (if it is confirmed), first record with waiting states for the same train and same category are searched from the Passenger table and its states is changed to confirm.

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=> SELECTION 01: Created a Database[PHMS]

=> SELECTION 02: Created Appropriate Tables with column definition related to the project

=> SELECTION 03: ALTER, DROP AND MODIFY TABLES & COLUMNS

=> SELECTION 04: CREATE CLUSTERED AND NONCLUSTERED INDEX

=> SELECTION 05: CREATE A VIEW WITH ENCRIPTION

=> SELECTION 06: CREATE STORED PROCEDURE SELECT, INSET, UPDATE, DELATE

& IN PARAMITER OR OUT PARAMITER

=> SELECTION 07: CREATE FUNCTION (TABLE, SCALAR, MULTISTATEMENT

TABLE VALUED) & ALTER FUNCTION

=> SELECTION 08: CREATE TRIGGER (FOR/AFTER TRIGGER)

=> SELECTION 09: CREATE TRIGGER (INSTEAD OF TRIGGER)

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SUB SECTION => 4.5 : INNER JOIN WITH GROUP BY CLAUSE

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SUB SECTION => 4.8 : DISTINCT

SUB SECTION => 4.9: LIKE, IN OPERATOR

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SUB SECTION => 4.20: IF ELSE