

# Railway Reservation System

## Project - 1

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## **Honor Code**

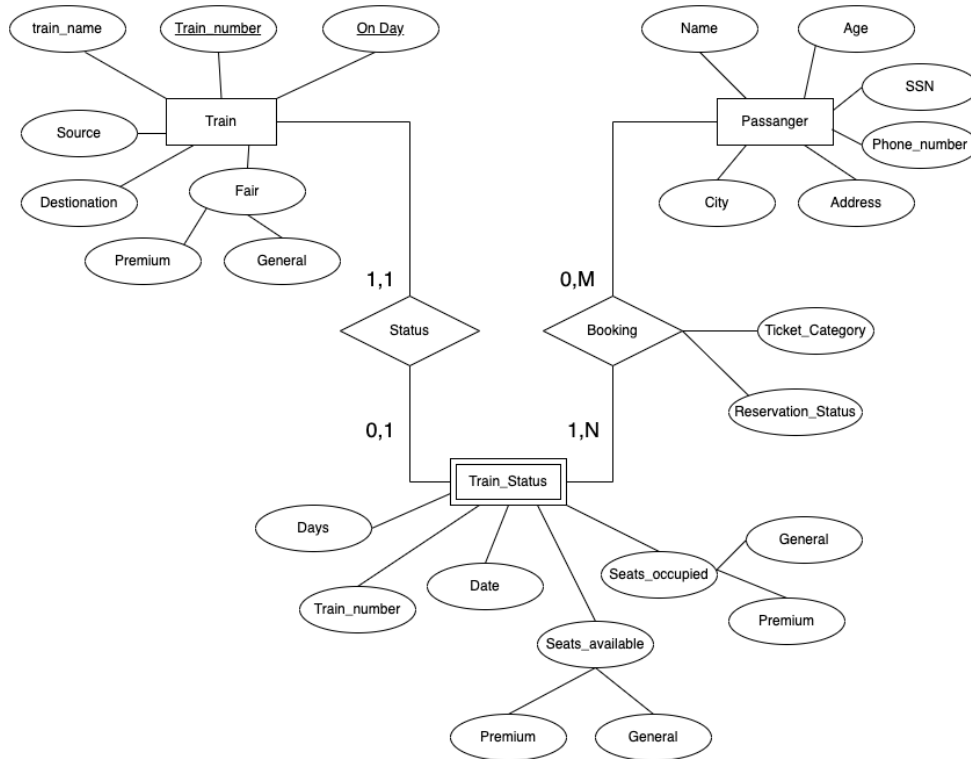
I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or that I contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

## Screenshots

### PART 1: ER DIAGRAM

The assumptions and cardinality are mentioned below



#### Assumption:

In Entity TRAIN, after applying 1-norm the attribute weekdays\_available will be converted to attribute On\_Day.

As per the definition of 1st normalization form, a relation should only have single-valued attribute

Train_no	Train_name	Day
1	Train 1	Fri
1	Train 1	Sat
1	Train 1	Sun
2	Train 2	Sun
3	Train 3	Mon

If the 1st normalization is not applied, then the cardinality between Train and Train\_status will be (1,1) - (0, N). As we applied 1st norm, it will be converted to (1, 1) - (0,1)

## PART 2: GUI

### Task 1:

When the user provides the first name and first name the query displays

The screenshot shows a web application titled "Railway Reservation System". At the top, there are six tabs labeled "Task 1" through "Task 6". "Task 1" is selected and highlighted in red. Below the tabs, there is a table with the following data:

Train Number	Train Name	Ticket Category	Reservation Status	Date
3	Golden Arrow	Premium	Booked	20/02/2022

Below the table, there are two input fields for a search query. The first field is labeled "First Name:" and contains the text "James". The second field is labeled "Last Name:" and contains the text "Butt". Below these fields, there is a button labeled "Get all trains the passenger is booked on". At the bottom left, there is a label "Rows returned: 1".

all the trains booked.

## Task 2:

When the user inputs the Date all the confirmed tickets are displayed.

Task 1

Task 2

Task 3

Task 4

Task 5

Task 6

Railway Reservation System

First Name	Last Name	SSN	Address	Age
Josephine	Darakjy	240471168	4 B Blue Ridge Blvd	59
Art	Venere	285200976	8 W Cerritos Ave #54	45
Fletcher	Flosi	317434088	394 Manchester Blvd	54
Sage	Wieser	310908858	5 Boston Ave #88	44
Kris	Marrier	322273872	228 Runamuck Pl #280	25

Day:

Monday

Get all passengers with confirmed tickets on a Day

Rows returned: 5

Task 3:  
Train Number, Train Name, Source, Destination, and Passenger information who are between 50 to 60 are displayed.

Task 1

Task 2

Task 3

Task 4

Task 5

Task 6

Train Number	Train Name	Source	Destination	Passenger Name	Passenger Address	Ticket Category	Booking Status
2	Flying Scotsman	Edinburgh	London	Josephine	4 B Blue Ridge Blvd	General	Booked
3	Golden Arrow	Victoria	Dover	Mattie	73 State Road 434 E	General	Booked
3	Golden Arrow	Victoria	Dover	Meaghan	69734 E Carrillo St	General	WaitList
4	Golden Chariot	Bangalore	Goa	Mattie	73 State Road 434 E	General	Booked

Age of passenger (50 to 60):

59

Get details

Rows returned: 4

## Task 4:

On this page, all the train names with passenger count are displayed.

Railway Reservation System

Task 1Task 2Task 3Task 4Task 5Task 6

Train Number	Train Name	No. of passengers
1	Orient Express	None
2	Flying Scotsman	6
3	Golden Arrow	7
4	Golden Chariot	12
5	Maharaja Express	None

Get all train names and count of passengers

Rows returned: 5

## Task 5:

The passengers with Booking status “CONFIRMED” are returned upon

Task 1

Task 2

Task 3

Task 4

Task 5

Task 6

Railway Reservation System

Date	First Name	Last Name	Address	Age
20/02/2022	James	Butt	6649 N Blue Gum St	51
20/02/2022	Graciela	Ruta	98 Connecticuit Ave Nv	45
20/02/2022	Cammy	Albares	56 E Morehead St	58
20/02/2022	Mattie	Poquette	73 State Road 434 E	59

Train Name:

Golden Arrow

Get all the passengers with confirmed status

Rows returned: 4

entering Train Name.



## Task 6:

When a user cancels the ticket another passenger who is on the waitlist

Task 1Task 2Task 3Task 4Task 5Task 6

Train Name	Train Number	SSN	Date	First Name	Last Name	Ticket Category	Booking Status
Golden Chariot	4	285200976	24/02/2022	Art	Venere	Premium	Booked
Flying Scotsman	2	285200976	21/02/2022	Art	Venere	Premium	Booked
Flying Scotsman	2	317434088	21/02/2022	Fletcher	Flosi	Premium	Booked
Flying Scotsman	2	310908858	21/02/2022	Sage	Wieser	General	Booked
Flying Scotsman	2	322273872	21/02/2022	Kris	Marrier	General	Booked
Golden Arrow	3	256558303	20/02/2022	Abel	Maclead	Premium	Booked
Flying Scotsman	2	302548590	21/02/2022	Jesse	Paul	General	Booked
Golden Arrow	3	277292710	20/02/2022	Graciela	Ruta	General	Booked
Golden Arrow	3	331160133	20/02/2022	Cammy	Albares	General	Booked
Golden Arrow	3	331293204	20/02/2022	Mattie	Poquette	General	Booked

SSN:

240471168

Train Number:

2

Date:

21/02/2022

Cancel Ticket

Reload Table

Rows returned: 23

Updated to Booked status of User SSN: 302548590

Booking status will be changed to confirmed and their SSN will be displayed.