American International University-Bangladesh (AIUB)

Department of Computer Science
Faculty of Science &Technology (FST)
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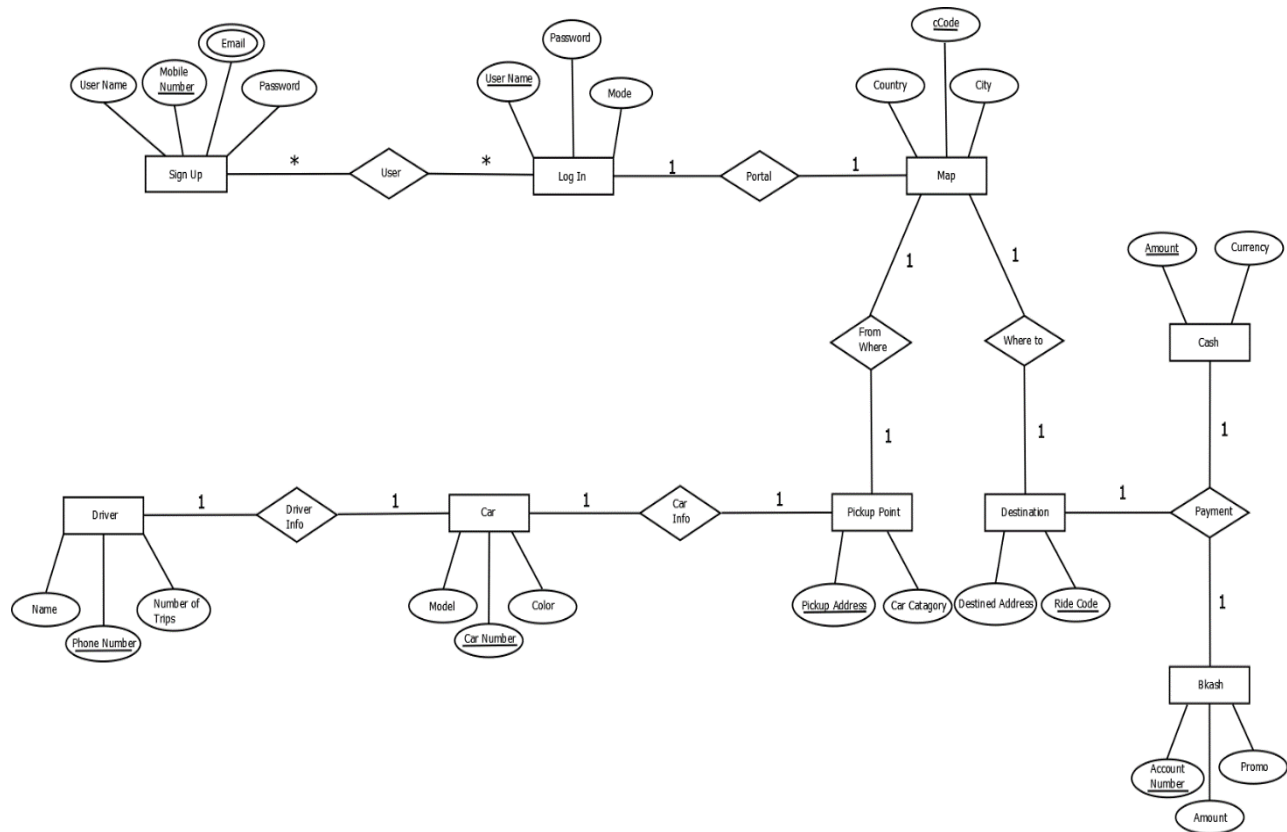## Introduction to Database

Section: K
Group No: 7

Car Ride Management System

An Introduction to Database project submitted by

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ER DIAGRAM

Description

1. Mr. X wants to go to Uttara from Dhanmondi but he can't find any transport. Suddenly he remembered that he had downloaded an app from play store which is a car ride app. In the app Mr. X has to Sign up providing his Username, E-mail, Password & Mobile Number. Maximum one sign up from one mobile number can be possible.

2. Next, he has to Log in as a user with his E-mail and unique Password. Many sign ups and many logins are possible.

3. After logging in, he will be redirected to a Portal where Map selection will be done. In the map there's all available countries and cities of the world where this car ride service is available. And he has to select the country and city he is in. One log in can have one country and city selection. An auto cCode will be generated for specification.

4. He can select the pickup point where he has to select his pickup address and car category such as premium or normal.

5. He can select his destined address from destination selection and will get a unique ride code. From one map selection to one pickup point and one destination selection can be done.

6. One payment method can be selected among cash and bkash from destination selection. For cash there will be a unique amount and currency. And for bkash a unique account number, amount and a promo code for discount if available.

7. After selecting those he will be connected to his nearest Car. Only car from for one ride will be found and car's info such as model, unique car number and color will be available for him to see.

8. For that particular car the info of the driver of that car will be available to see. The information will be the driver's name, unique phone number and his total number of trips.

"Green Color" means Primary Key

"Red color" means Foreign key

User – (Phone, UserName, Email, Password, UserName, Password, Version)

1NF: Email is a multivalued attribute.

2NF: Phone, UserName, Email, Password

   UserName, Password, Version

3NF: No transitive dependency

   Phone, UserName, Email, Password

   UserName, Password, Version

Tables for **User** -

1. Phone, UserName, Password

2. UserName, Password, Version

3. U_id, UserName, Phone – Composite PK

4. Phone, Email

● **Portal** – (UserName, Password, Version, Country, cCode, City)

1NF: No multivalued attribute.

2NF: UserName, Password, Version

   cCode, Country, City

3NF: No transitive dependency

   UserName, Password, Version

   cCode, Country, City

Tables for **Portal** –

1. UserName, Password, Version

2. cCode, Country, City, UserName

- **From Where** – (cCode, Country, City, PickupAddress, CarCatagory)

1NF: No multivalued attribute.

2NF: cCode, Country, City

PickupAddress, CarCatagory

3NF: No transitive dependency

cCode, Country, City

PickupAddress, CarCatagory

Tables for **From Where** –

1. PickupAddress, CarCatagory, cCode

2. cCode, Country, City

- **Where to** – (cCode, Country, City, RideCode, DestinedAddress)

1NF: No multivalued attribute.

2NF: cCode, Country, City

RideCode, DestinedAddress

3NF: No transitive dependency

cCode, Country, City

RideCode, DestinedAddress

Tables for **Where to** –

1. RideCode, DestinedAddress, cCode

2. cCode, Country, City

- **<u>Car Info</u>** – (PickupAddress, CarCatagory, CarNumber, Model, Color)

1NF: No multivalued attribute.

2NF: PickupAddress, CarCatagory

   CarNumber, Model, Color

3NF: No transitive dependency

   PickupAddress, CarCatagory

   CarNumber, Model, Color

Tables for **<u>Car Info</u>** –

1. CarNumber, Model, Colour, PickupAddress

2. PickupAddress, CarCatagory

- **<u>Payment</u>** – (RideCode, DestinedAddress, Amount, Currency, AccountNumber, Amount, Promo)

1NF: No multivalued attribute.

2NF: RideCode, DestinedAddress

   Amount, Currency

   AccountNumber, Amount, Promo

3NF: No transitive dependency

   RideCode, DestinedAddress

   Amount, Currency

   AccountNumber, Amount, Promo

Tables for **<u>Payment</u>** –

1. RideCode, DestinedAddress

2. Amount, Currency, RideCode

3. AccountNumber, Amount, Promo, RideCode

- **Driver Info** – (CarNumber, Model, Colour, DriverPhn, DriverName, TripsNum)

1NF: No multivalued attribute.

2NF: CarNumber, Model, Colour

DriverPhn, DriverName, TripsNum

3NF: No transitive dependency

CarNumber, Model, Colour

DriverPhn, DriverName, TripsNum

Tables for **Driver Info** –

1. DriverPhn, DriverName, TripsNum, CarNumber

2. CarNumber, Model, Colour

Final Table

1. Phone, UserName, Password

2. UserName, Password, Version

3. U_id, UserName, Phone – Composite PK

4. Phone, Email

5. cCode, Country, City, UserName

6. PickupAddress, CarCatagory, cCode

7. RideCode, DestinedAddress, cCode

8. CarNumber, Model, Colour, PickupAddress

9. Amount, Currency, RideCode

10. AccountNumber, Amount, Promo, RideCode

11. DriverPhn, DriverName, TripsNum, CarNumber

1. Table Name – Sign Up

Screenshot – desc Sign_up

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **SIGN_UP**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SIGN_UP	USERNAME	Varchar2	20	-	-	-	✓	-	-
	PASSWORD	Varchar2	15	-	-	-	✓	-	-
	PHONE	Varchar2	11	-	-	1	-	-	-
									1 - 3

Screenshot – Displaying (Insertion)

Results   Explain   Describe   Saved SQL   History

USERNAME	PASSWORD	PHONE
Aftab	aftabcorp	01999799799
Abir	abircorp	01799699700
Sany	Sanycorp	01888688700
Tanvir	tanvir1325	01988688700

4 rows returned in 0.20 seconds   CSV Export

2. Table Name – Log_in

Screenshot – desc Log_in

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **LOG_IN**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
LOG_IN	USERNAME	Varchar2	20	-	-	1	-	-	-
	PASSWORD	Varchar2	15	-	-	-	✓	-	-
	VERSION	Varchar2	10	-	-	-	✓	-	-
									1 - 3

Screenshot – Displaying (Insertion)

Results   Explain   Describe   Saved SQL   History

USERNAME	PASSWORD	VERSION
Aftab	aftabcorp	premium
Abir	abircorp	Lite
Sany	Sanycorp	premium
Tanvir	tanvir1325	lite

4 rows returned in 0.26 seconds   CSV Export

3. Table Name – User_info

Screenshot – desc User_info

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **USER_INFO**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
USER_INFO	U_ID	Number	-	10	0	1	-	-	-
	USERNAME	Varchar2	20	-	-	-	✓	-	-
	PHONE	Varchar2	11	-	-	-	✓	-	-
									1 - 3

Screenshot – CONSTRAINTS (V1 & V2)

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004257	P	USER_INFO	-	-	-	-	ENABLED
SCOTT	V2	R	USER_INFO	-	SCOTT	SYS_C004256	NO ACTION	ENABLED
SCOTT	V1	R	USER_INFO	-	SCOTT	SYS_C004237	NO ACTION	ENABLED

3 rows returned in 0.00 seconds   CSV Export

Screenshot – SEQUENCE (ID_SQ)

Results Explain Describe Saved SQL History

SEQUENCE_NAME	MIN_VALUE	MAX_VALUE	INCREMENT_BY	CYCLE_FLAG	ORDER_FLAG	CACHE_SIZE	LAST_NUMBER
ID_SQ	1	1000	2	N	N	0	9

Screenshot – Displaying (Insertion)

Results Explain Describe Saved SQL History

U_ID	USERNAME	PHONE
1	Aftab	01999799799
3	Abir	01799699700
5	Sany	01888688700
7	Tanvir	01988688700

4 rows returned in 0.11 seconds   CSV Export

4. Table Name – Personal_info_user

Screenshot – desc Personal_info_user

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **PERSONAL_INFO_USER**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PERSONAL_INFO_USER	PHONE	Varchar2	11	-	-	1	-	-	-
	EMAIL	Varchar2	35	-	-	-	✓	-	-
									1 - 2

Screenshot – Displaying (Insertion)

Results Explain Describe Saved SQL History

PHONE	EMAIL
01999799799	20-41991-1@student.aiub.edu
01799699700	20-42702-1@student.aiub.edu
01888688700	19-41409-3@student.aiub.edu
01988688700	20-43015-1@student.aiub.edu

4 rows returned in 0.12 seconds   CSV Export

5. **Table Name – User_Loc**

Screenshot – desc User_Loc

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **USER_LOC**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
USER_LOC	CCODE	Number	-	8	0	1	-	-	-
	COUNTRY	Varchar2	10	-	-	-	✓	-	-
	CITY	Varchar2	10	-	-	-	✓	-	-
	USERNAME	Varchar2	20	-	-	-	✓	-	-
									1 - 4

Screenshot – CONSTRAINTS (V3)

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004263	P	USER_LOC	-	-	-	-	ENABLED
SCOTT	V3	R	USER_LOC	-	SCOTT	SYS_C004256	NO ACTION	ENABLED

2 rows returned in 0.02 seconds   CSV Export

Screenshot – SEQUENCE (CC_SQ)

Results Explain Describe Saved SQL History

SEQUENCE_NAME	MIN_VALUE	MAX_VALUE	INCREMENT_BY	CYCLE_FLAG	ORDER_FLAG	CACHE_SIZE	LAST_NUMBER
ID_SQ	1	1000	2	N	N	0	9
CC_SQ	1	10000	5	N	N	0	1226

Screenshot – Displaying (Insertion)

Results Explain Describe Saved SQL History

CCODE	COUNTRY	CITY	USERNAME
1201	Banglasesh	Dhaka	Aftab
1206	Canada	Toronto	Abir
1211	Uganda	Kampala	Sany
1216	Ghana	Accra	Tanvir

4 rows returned in 0.07 seconds   CSV Export

6. Table Name – PickUp

Screenshot – desc PickUp

| Results | Explain | Describe | Saved SQL | History |

Object Type **TABLE** Object **PICKUP**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PICKUP	CCODE	Number	-	8	0	-	✓	-	-
	PICKUPADDRESS	Varchar2	40	-	-	1	-	-	-
	CARCATAGORY	Varchar2	8	-	-	-	✓	-	-
									1 - 3

Screenshot – CONSTRAINTS (V5)

| Results | Explain | Describe | Saved SQL | History |

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004265	P	PICKUP	-	-	-	-	ENABLED
SCOTT	V5	R	PICKUP	-	SCOTT	SYS_C004263	NO ACTION	ENABLED

2 rows returned in 0.02 seconds   CSV Export

Screenshot – Displaying (Insertion)

| Results | Explain | Describe | Saved SQL | History |

CCODE	PICKUPADDRESS	CARCATAGORY
1201	Jatrabari	Premium
1206	Etobicoke	Premium
1211	Kampala Airport	Lite
1216	Ablekuma North	Lite

4 rows returned in 0.05 seconds   CSV Export

7. Table Name – Destination

Screenshot – desc Destination

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **DESTINATION**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DESTINATION	CCODE	Number	-	8	0	-	✓	-	-
	RIDECODE	Number	-	8	0	1	-	-	-
	DESTINEDADDRESS	Varchar2	40	-	-	-	✓	-	-
									1 - 3

Screenshot – CONSTRAINTS (V6)

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004267	P	DESTINATION	-	-	-	-	ENABLED
SCOTT	V6	R	DESTINATION	-	SCOTT	SYS_C004263	NO ACTION	ENABLED

2 rows returned in 0.00 seconds   CSV Export

Screenshot – SEQUENCE (RC_SQ)

Results Explain Describe Saved SQL History

SEQUENCE_NAME	MIN_VALUE	MAX_VALUE	INCREMENT_BY	CYCLE_FLAG	ORDER_FLAG	CACHE_SIZE	LAST_NUMBER
ID_SQ	1	1000	2	N	N	0	9
CC_SQ	1	10000	5	N	N	0	1226
RC_SQ	1	1000	3	N	N	0	113

3 rows returned in 0.00 seconds   CSV Export

Screenshot – Displaying (Insertion)

Results Explain Describe Saved SQL History

CCODE	RIDECODE	DESTINEDADDRESS
1201	101	Kuril Highway
1206	104	Toronto University
1211	107	Tiktok Restaurant
1216	110	National Banking College

4 rows returned in 0.11 seconds   CSV Export

8. Table Name – Car_info

Screenshot – desc Car_info

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CAR_INFO	CARNUMBER	Varchar2	12	-	-	1	-	-	-
	MODEL	Varchar2	12	-	-	-	✓	-	-
	COLOUR	Varchar2	12	-	-	-	✓	-	-
	PICKUPADDRESS	Varchar2	40	-	-	-	✓	-	-
									1 - 4

Object Type **TABLE** Object **CAR_INFO**

Results Explain Describe Saved SQL History

Screenshot – CONSTRAINTS (V7)

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004269	P	CAR_INFO	-	-	-	-	ENABLED
SCOTT	V7	R	CAR_INFO	-	SCOTT	SYS_C004265	NO ACTION	ENABLED

2 rows returned in 0.02 seconds   CSV Export

Screenshot – Displaying (Insertion)

Results Explain Describe Saved SQL History

CARNUMBER	MODEL	COLOUR	PICKUPADDRESS
11-7288	Jaguar X8	Mattel Blue	Jatrabari
EO7 FFN	BMW i8	Black	Etobicoke
K 1024	Toyota Axio	White	Kampala Airport
GT 74 B	Nissan GTR	Red	Ablekuma North

4 rows returned in 0.21 seconds   CSV Export

9. Table Name – Cash

Screenshot – desc Cash

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **CASH**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CASH	AMOUNT	Number	-	4	0	1	-	-	-
	CURRENCY	Varchar2	20	-	-	-	✓	-	-
	RIDECODE	Number	-	8	0	-	✓	-	-
									1 - 3

Screenshot – CONSTRAINTS (V8)

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004271	P	CASH	-	-	-	-	ENABLED
SCOTT	V8	R	CASH	-	SCOTT	SYS_C004267	NO ACTION	ENABLED

2 rows returned in 0.01 seconds   CSV Export

Screenshot – Displaying (Insertion)

Results **Explain** **Describe** **Saved SQL** **History**

AMOUNT	CURRENCY	RIDECODE
550	TAKA	101
60	Canadian Dollar	104
3000	Ugandan Shilling	107
900	Ghanaian Cedi	110

4 rows returned in 0.04 seconds   CSV Export

10. Table Name – Online_Pay

Screenshot – desc Online_Pay

Results   Explain   Describe   Saved SQL   History

Object Type **TABLE** Object **ONLINE_PAY**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ONLINE_PAY	ACCOUNTNUMBER	Number	-	20	0	1	-	-	-
	AMOUNT	Number	-	4	0	-	✓	-	-
	PROMO	Varchar2	8	-	-	-	✓	-	-
	RIDECODE	Number	-	8	0	-	✓	-	-
									1 - 4

Screenshot – CONSTRAINTS (V9)

Results   Explain   Describe   Saved SQL   History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004273	P	ONLINE_PAY	-	-	-	-	ENABLED
SCOTT	V9	R	ONLINE_PAY	-	SCOTT	SYS_C004267	NO ACTION	ENABLED

2 rows returned in 0.01 seconds   CSV Export

Screenshot – Displaying (Insertion)

Results   Explain   Describe   Saved SQL   History

ACCOUNTNUMBER	AMOUNT	PROMO	RIDECODE
73526498765	550	No Promo	101
34756734856	60	No Promo	104
296595642634	3000	FX998	107
74523475234	900	HOLLY20	110

4 rows returned in 0.67 seconds   CSV Export

11. Table Name – Driver_info

Screenshot – desc Driver_info

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **DRIVER_INFO**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DRIVER_INFO	DRIVERPHN	Varchar2	15	-	-	1	-	-	-
	DRIVERNAME	Varchar2	20	-	-	-	✔	-	-
	TRIPSNUM	Number	-	4	0	-	✔	-	-
	CARNUMBER	Varchar2	12	-	-	-	✔	-	-
									1 - 4

Screenshot – CONSTRAINTS (V10)

Results   Explain   Describe   Saved SQL   History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SCOTT	SYS_C004278	P	DRIVER_INFO	-	-	-	-	ENABLED
SCOTT	V10	R	DRIVER_INFO	-	SCOTT	SYS_C004269	NO ACTION	ENABLED

2 rows returned in 1.08 seconds   CSV Export

Screenshot – Displaying (Insertion)

Results   Explain   Describe   Saved SQL   History

DRIVERPHN	DRIVERNAME	TRIPSNUM	CARNUMBER
01934763446	MD. Kuddus	200	11-7288
+475634785	Patrick	300	EO7 FFN
+256206300941	Asus Bocha	500	K 1024
+1 646 980 4741	Takisha Sisi	50	GT 74 B

4 rows returned in 0.00 seconds   CSV Export

Questions

1. Display the username tagged as User Name whose phone number is 01888688700 from sign_up table.

2. Display user name and email of the user whose 3rd character of the phone number is 7.

3. Display the total number of rows where the version is premium from the Log_in table.

4. Display all the details from the User_Loc table whose country code is greater than Aftab's country code.

5. Display username and pick up address of users who has chosen premium car category.

6. Alter the RC_SQ sequence increment by 5 max values should be 2000.

7. Create and display a read only view named car from Driver_info table with driver's phone number, name & car number where the number of trips is greater than 100.

8. Display the user id and user name as "5 is the user Id of Sany" in the descending order of user id, where the id is between 1 to 5 and name the column as "User ID Information".

9. Display the driver's name, car number & model where there is 10 in the middle of the car number.

10. Display amount, currency, account number and promo code for the user who paid the maximum amount. (Currency value is negatable)