

## KULLIYYAH OF INFORMATION COMMUNICATION AND TECHNOLOGY

# INFO 2103 DATABASE PROGRAMMING SECTION 3

## GROUP PROJECT ASSIGNMENT:

## **ZOO TICKETING SYSTEM**

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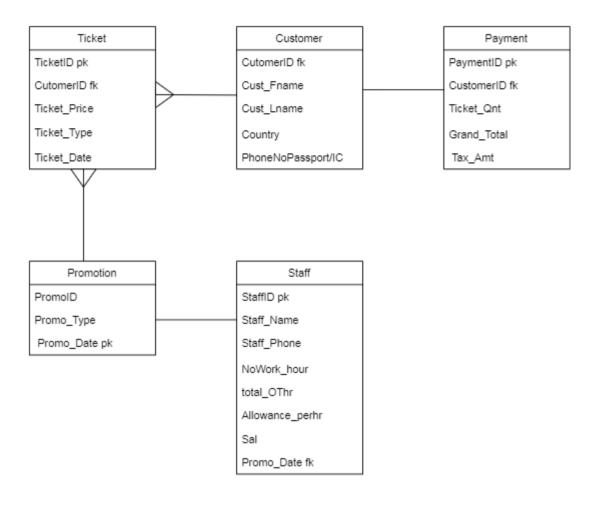
## 1.0 Background Project

Our project title is "Zoo Ticketing System". The purpose of this database is to ease the process of storing, updating, add, calculating salary and promotions for the staff and customers that works and comes to the zoo. Everyday a lot of people come to the zoo and there are specific dates and privilege package that is offered by the zoo. For example, there is an adult zoo promotion trip for New Year where you get an adult ticket per head for only Rm26, the original price on a normal day is Rm40 and also with many more upcoming promotion. The usage of this database system also helps to minimize the wastage of paper to store a lot of data at once.

## 1.2 Project Significant

Managing business and ensuring the business goes well requires a database management system. This database management system is important because it manages data efficiently. For example, users (admin or business owner) will be able to see their business from a different perspective. Database management system also allows users to perform multiple tasks and see unique features to improve their business. This is because, with database management system, business owners will be able to see the sales per mon that their company able to make. They also will able to observe on which product or promotion that brings more customers and more profits to the company. The database management system also stores, organizes and manages a large amount of information within a single software application.

## 1.3 Zoo Ticketing System Entity Relationship Diagram (ERD)



# 2.0 Data dictionary for the ER Diagram – Zoo Ticketing System

# **CUSTOMER**

ATTRIBUTE NAME	DATA TYPE	SIZE	NULL
CustomerID	Varchar2	8	No (Primary Key)
Cust_Fname	Varchar2	15	No
Cust_Lname	Varchar2	15	No
Country	Varchar2	12	No
PhoneNo	Number	11	No
custPassport_IC	Number	15	No

# **STAFF**

ATTRIBUTE NAME	DATA TYPE	SIZE	NULL
StaffID	Varchar2	8	No (Primary Key)
Staff_Name	Varchar2	20	No
Staff_PhoneNo	Number	11	No
Work_hour	Number	15	No
total_OThr	Number	5	No
Allowance_perhr	Number	(5,2)	No
Sal	Number	10	No

# TICKET

ATTRIBUTE NAME	DATA TYPE	SIZE	NULL
TicketID	Number	5	No (Primary Key)
CustomerID	Varchar2	8	No (Foreign Key)
Ticket_Date	Date		No
Ticket_Type	Varchar2	20	No
Ticket_Price	Number	(5,2)	No

## **PROMOTION**

ATTRIBUTE NAME	DATA TYPE	SIZE	NULL
PromoID	Varchar2	8	No
Promo_Type	Varchar2	30	No
Promo_Date	Date		No (Primary Key)

## **PAYMENT**

ATTRIBUTE NAME	DATA TYPE	SIZE	NULL
PaymentID	Varchar2	8	No (Primary Key)
CustomerID	Varchar2	8	No (Foreign Key)
Ticket_Qnt	Number	3	No
Tax_Amt	Number	(5,2)	No
Grand_Total	Number	(5,2)	No

#### 2.1 Create table

```
Drop Table Customer cascade constraints;
Drop Table Staff cascade constraints;
Drop Table Ticket cascade constraints;
Drop Table Promotion cascade constraints;
Drop Table Payment cascade constraints;
```

#### **Table Customer:**

```
SQL> Create Table Customer (
                      Varchar2(8),
 2 CustomerID
    Cust Fname
                      Varchar2(15),
                      Varchar2(15),
    Cust_Lname
                      Varchar2(12),
    Country
                      Number(11),
    PhoneNo
    custPassport_IC Number(14),
    constraint Customer_CustomerID_PK Primary Key (CustomerID));
Table created.
SQL>
SQL> desc customer
Name
                                           Null?
                                                     Type
CUSTOMERID
                                           NOT NULL VARCHAR2(8)
CUST FNAME
                                                     VARCHAR2(15)
CUST LNAME
                                                     VARCHAR2(15)
COUNTRY
                                                     VARCHAR2(12)
PHONENO
                                                     NUMBER(11)
 CUSTPASSPORT_IC
                                                     NUMBER(14)
```

```
Create Table Customer (
CustomerID Varchar2(8),
Cust_Fname Varchar2(15),
Cust_Lname Varchar2(15),
Country Varchar2(12),
PhoneNo Number(11),
custPassport_IC Number(14),
constraint Customer_CustomerID_PK Primary Key (CustomerID));
```

### **Table Staff:**

```
Create Table Staff (
StaffID Number(5),
    Staff Name
                       Varchar2(20),
4 Staff_PhoneNo
                       Number(11),
                       Date,
  Promo Date
                      Number(15),
Number(5),
 6 Work hour
7
    total_OThr
    Allowance_perhr
                              Number(5,2),
    Sal Number(10), constraint Staff_StaffID_PK Primary Key (StaffID),
10
    constraint Staff_Promo_Date_FK Foreign Key (Promo_Date) References Promotion);
able created.
QL> desc Staff
Name
                                               Nu11?
                                                         Type
STAFFID
                                               NOT NULL NUMBER(5)
STAFF_NAME
STAFF_PHONENO
PROMO_DATE
                                                         VARCHAR2(20)
                                                         NUMBER(11)
                                                         DATE
WORK HOUR
                                                         NUMBER(15)
TOTAL_OTHR
                                                         NUMBER(5)
ALLOWANCE_PERHR
                                                         NUMBER(5,2)
SAL
                                                         NUMBER(10)
```

```
Create Table Staff (
StaffID
            Number(5),
Staff_Name
               Varchar2(20),
Staff_PhoneNo
               Number(11),
Work_hour
              Number(15),
total_OThr
               Number(5),
Allowance perhr
                    Number(5,2),
Sal
            Number(10),
Promo_Date date,
constraint Staff_StaffID_PK Primary Key (StaffID),
constraint Staff Promo Date FK Foreign Key (Promo Date) References Promotion);
```

#### **Table Ticket:**

```
SQL> Create Table Ticket (
                      Number(5),
    TicketID
                      Varchar2(8),
    CustomerID
                      Date,
Varchar(20),
    Ticket Date
    Ticket_Type
    Ticket_Price
                      Number(5,2),
    constraint Ticket TicketID PK Primary Key (TicketID),
 8 constraint Ticket CustomerID FK Foreign Key (CustomerID) References Customer);
Table created.
SQL> desc Ticket
Name
                                            Null?
                                                     Type
                                            NOT NULL NUMBER(5)
TICKETID
CUSTOMERID
                                                     VARCHAR2(8)
TICKET_DATE
                                                     DATE
TICKET_TYPE
                                                     VARCHAR2(20)
 TICKET PRICE
                                                     NUMBER(5,2)
```

Create Table Ticket (
TicketID Number(5),
CustomerID Varchar2(8),
Ticket Date Date,

Ticket\_Type Varchar(20),

Ticket\_Price Varchar(20),
Ticket\_Price Number(5,2),

constraint Ticket\_TicketID\_PK Primary Key (TicketID),

constraint Ticket\_CustomerID\_FK Foreign Key (CustomerID) References Customer);

## **Table Promotion:**

```
SQL> Create Table Promotion (
  2 PromoID
                       Varchar2(8),
    Promo Type
                       Varchar(30),
    Promo_Date Date,
constraint Promotion_Promo_Date_PK Primary Key (Promo_Date));
 4 Promo Date
Table created.
SQL> desc Promotion
                                              Null?
Name
                                                        Type
PROMOID
                                                        VARCHAR2(8)
PROMO_TYPE
                                                        VARCHAR2(30)
PROMO_DATE
                                              NOT NULL DATE
```

```
Create Table Promotion (
PromoID Varchar2(8),
Promo_Type Varchar(30),
Promo_Date Date,
constraint Promotion_Promo_Date_PK Primary Key (Promo_Date));
```

## **Table Payment:**

```
SQL> Create Table Payment (
                       Varchar2(8),
  2 PaymentID
                       Varchar2(8),
    CustomerID
                       Number(3),
Number(5,2),
    Ticket Ont
     Tax Amt
     Grand_Total Number(5,2),
constraint Payment_PaymentID_PK Primary Key (PaymentID),
 6 Grand_Total
    constraint Payment_CustomerID_FK Foreign Key (CustomerID) References Customer);
Table created.
SQL>
SQL> desc Payment
Name
                                               Null?
                                                         Type
                                               NOT NULL VARCHAR2(8)
PAYMENTID
CUSTOMERID
                                                         VARCHAR2(8)
 TICKET_QNT
                                                         NUMBER(3)
 TAX AMT
                                                         NUMBER(5,2)
GRAND_TOTAL
                                                         NUMBER(5,2)
```

```
Create Table Payment (
PaymentID Varchar2(8),
CustomerID Varchar2(8),
Ticket_Qnt Number(3),
Tax_Amt Number(5,2),
Grand_Total Number(5,2),
constraint Payment_PaymentID_PK Primary Key (PaymentID),
constraint Payment_CustomerID_FK Foreign Key (CustomerID) References Customer);
```

### 2.2 Insert data for all table

### **Customer Data:**

```
insert into Customer
values('C100', 'Tisya', 'Amani', 'Malaysia', '0123456789', '921106');
insert into Customer
values('C200', 'Fahim', 'Najmi', 'Malaysia', '0176565410', '991203');
insert into Customer
values('C300', 'Johan', 'Ahmad', 'Malaysia', '0122566310', '971006');
insert into Customer
values('C400', 'Aqil', 'Ali', 'Malaysia', '0165634100', '980602');
insert into Customer
values('C500', 'Ahmad', 'Amri', 'Malaysia', '0189090121', '900415');
insert into Customer
values('C600', 'Sarah', 'Sue', 'Turkey', '9011234', '930403');
insert into Customer
values('C700', 'Amirah', 'Izzati', 'Malaysia', '0142895676', '940707');
insert into Customer
values('C800', 'Darwish', 'Ahnaf', 'Malaysia', '0156543210', '961010');
insert into Customer
values('C900', 'Nur', 'Izzah', 'Indonesia', '6210089', '940506');
insert into Customer
values('C110', 'Intan', 'Sofea', 'Dubai', '971050', '970118');
```

USTOMER	CUST_FNAME	CUST_LNAME	COUNTRY	PHONENO CUST	PASSPORT_IC
100	Tisya	Amani	Malaysia	123456789	921106
200	Fahim	Najmi	Malaysia	176565410	991203
300	Johan	Ahmad	Malaysia	122566310	971006
2400	Aqil	Ali	Malaysia	165634100	980602
500	Ahmad	Amri	Malaysia	189090121	900415
600	Sarah	Sue	Turkey	9011234	930403
700	Amirah	Izzati	Malaysia	142895676	940707
800	Darwish	Ahnaf	Malaysia	156543210	961010
900	Nur	Izzah	Indonesia	6210089	940506
110	Intan	Sofea	Dubai	971050	970118

### **Staff Data:**

```
insert into Staff
```

values(5100, 'Amanda Eydora', '0149302784', TO\_DATE('13-DEC-20'), 8, 1, 7.5,1550);

## insert into Staff

values(5110, 'Fahrin Ahmad', '0127396381', TO\_DATE('13-DEC-20'), 8,2, 15, 70000);

## insert into Staff

values(5120, 'Uyaina Arshad', '0138740827', TO\_DATE('13-DEC-20'), 8,3, 22.5, 70000);

## insert into Staff

values(5130, 'Misha Omar', '0195472973', TO\_DATE('13-DEC-20'), 8, 1, 7.5,1550);

## insert into Staff

values(5140, 'Fatin Ameera', '0118936592', TO\_DATE('13-DEC-20'), 8, 2, 15,2550);

### insert into Staff

values(5150, 'Remy Ishak', '0107362857', TO\_DATE('13-DEC-20'), 8,3, 22.5,3550);

## insert into Staff

values(5160, 'Shaheizy Sam', '0173856728', TO\_DATE('13-DEC-20'), 8,1, 7.5, 1550);

#### insert into Staff

values(5170, 'Hadri Zafran', '01375809547', TO\_DATE('13-DEC-20'), 8,2, 15,2550);

### insert into Staff

values(5180, 'John Ambrose', '0196568360', TO\_DATE('13-DEC-20'), 8,3, 22.5,3550);

insert into Staff values(5190, 'Kate Moss', '0148905682', TO\_DATE('13-DEC-20'), 8,1, 7.5,1550);

QL> select * from staff;			
STAFFID STAFF_NAME	STAFF_PHONENO	WORK_HOUR	TOTAL_OTHR
LLOWANCE_PERHR SAL			
5100 Amanda Eydora 7.5 1550	149302784	8	1
5110 Fahrin Ahmad 7.5 70000	127396381	8	2
5120 Uyaina Arshad 7.5 70000	138740827	8	3
STAFFID STAFF_NAME	STAFF_PHONENO	WORK_HOUR	TOTAL_OTHR
ALLOWANCE_PERHR SAL			
5130 Misha Omar 7.5 1550	195472973	8	1
5140 Fatin Ameera 7.5 2550	118936592	8	2
5150 Remy Ishak 7.5 3550	107362857	8	3
STAFFID STAFF_NAME	STAFF_PHONENO	WORK_HOUR T	OTAL_OTHR
ALLOWANCE_PERHR SAL			
5160 Shaheizy Sam 7.5 1550	173856728	8	1
5170 Hadri Zafran 7.5 2550	1375809547	8	2
5180 John Ambrose 7.5 3550	196568360	8	3
STAFFID STAFF_NAME	STAFF_PHONENO	WORK_HOUR T	OTAL_OTHR
ALLOWANCE_PERHR SAL			
5190 Kate Moss 7.5 1550	148905682	8	1
10 rows selected.			

### **Ticket Data:**

-- 2adult 1 kid

```
INSERT INTO TICKET
VALUES(10000, 'C100', TO DATE('14-MAR-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10001, 'C100', TO_DATE('14-MAR-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10002, 'C100', TO DATE('14-MAR-2019'), 'Kid', 20);
--4adult 2kid
INSERT INTO TICKET
VALUES(10003, 'C200', TO DATE('4-JUN-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10004, 'C200', TO_DATE('4-JUN-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10005, 'C200', TO DATE('4-JUN-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10006, 'C200', TO DATE('4-JUN-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10007, 'C200', TO_DATE('4-JUN-2019'), 'Kid', 20);
INSERT INTO TICKET
VALUES(10008, 'C200', TO_DATE('4-JUN-2019'), 'Kid', 20);
--2adult
INSERT INTO TICKET
VALUES(10009, 'C300', TO_DATE('4-APR-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10010, 'C300', TO_DATE('4-APR-2019'), 'Adult', 40);
--4adult
INSERT INTO TICKET
VALUES(10011, 'C400', TO_DATE('14-MAY-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10012, 'C400', TO DATE('14-MAY-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10013, 'C400', TO_DATE('14-MAY-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10014, 'C400', TO_DATE('14-MAY-2019'), 'Adult', 40);
--3 adult 2 kid
INSERT INTO TICKET
VALUES(10015, 'C500', TO_DATE('14-MAY-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10016, 'C500', TO_DATE('14-MAY-2019'), 'Adult', 40);
INSERT INTO TICKET
```

```
VALUES(10017, 'C500', TO_DATE('14-MAY-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10018, 'C500', TO_DATE('14-FEB-2019'), 'Kid', 20);
INSERT INTO TICKET
VALUES(10019, 'C500', TO DATE('14-FEB-2019'), 'Kid', 20);
--1 adult
INSERT INTO TICKET
VALUES(10020, 'C600', TO DATE('1-JUN-2019'), 'International', 60);
--2 adult
INSERT INTO TICKET
VALUES(10021, 'C700', TO DATE('25-SEP-2019'), 'Adult', 40);
INSERT INTO TICKET
VALUES(10022, 'C700', TO_DATE('25-SEP-2019'), 'Adult', 40);
--1 adult
INSERT INTO TICKET
VALUES(10023, 'C800', TO DATE('1-NOV-2019'), 'Adult', 40);
--10 international
INSERT INTO TICKET
VALUES(10024, 'C900', TO DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10025, 'C900', TO DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10026, 'C900', TO_DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10027, 'C900', TO_DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10028, 'C900', TO_DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10029, 'C900', TO DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10030, 'C900', TO DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10031, 'C900', TO_DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10032, 'C900', TO_DATE('14-MAR-2019'), 'International', 60);
INSERT INTO TICKET
VALUES(10033, 'C900', TO_DATE('14-MAR-2019'), 'International', 60);
```

--1 international INSERT INTO TICKET VALUES(10034, 'C110', TO\_DATE('1-NOV-2019'), 'International', 60);

5	QL> select	t * from t	ticket;		
	TICKETID	CUSTOMER	TICKET_DA	TICKET_TYPE	TICKET_PRICE
	10000	C100	14-MAR-19	Adult	40
ı	10001	C100	14-MAR-19	Adult	40
1	10002	C100	14-MAR-19	Kid	20
	10003	C200	04-JUN-19	Adult	40
ı	10004	C200	04-JUN-19	Adult	40
	10005	C200	04-JUN-19	Adult	40
ı	10006	C200	04-JUN-19	Adult	40
ı	10007	C200	04-JUN-19	Kid	20
	10008	C200	04-JUN-19	Kid	20
ı	10009	C300	04-APR-19	Adult	40
ı	10010	C300	04-APR-19	Adult	40
ı	TICKETID	CUSTOMER	TICKET_DA	TICKET_TYPE	TICKET_PRICE
ŀ					
			14-MAY-19		40
				Adult	40
			14-MAY-19		40
			14-MAY-19		40
			14-MAY-19		40
			14-MAY-19		40
			14-MAY-19		40
			14-FEB-19		20
			14-FEB-19		20
				International	60
	10021	C700	25-SEP-19	Adult	40

```
TICKETID CUSTOMER TICKET_DA TICKET_TYPE
                                                    TICKET_PRICE
     10022 C700
                    25-SEP-19 Adult
                                                               40
     10023 C800
                    01-NOV-19 Adult
                                                               40
     10024 C900
                    14-MAR-19 International
                                                               60
     10025 C900
                                                               60
                    14-MAR-19 International
     10026 C900
                    14-MAR-19 International
                                                               60
     10027 C900
                    14-MAR-19 International
                                                               60
     10028 C900
                    14-MAR-19 International
                                                               60
     10029 C900
                    14-MAR-19 International
                                                               60
     10030 C900
                    14-MAR-19 International
                                                               60
     10031 C900
                    14-MAR-19 International
                                                               60
     10032 C900
                    14-MAR-19 International
 TICKETID CUSTOMER TICKET DA TICKET TYPE
                                                    TICKET PRICE
                    14-MAR-19 International
                                                               60
     10033 C900
     10034 C110
                    01-NOV-19 International
                                                               60
35 rows selected.
```

### **Promotion Data:**

```
insert into Promotion
values('PR1294', 'Staff Privilege', TO_DATE('13-DEC-20'));
insert into Promotion
values('PR1456', 'Happy New Year Promotion', TO_DATE('01-JAN-20'));
insert into Promotion
values('PR2541', 'Chinese New Year Promotion', TO_DATE('25-JAN-20'));
insert into Promotion
values('PR2741', 'Valentine Day Promotion', TO_DATE('14-FEB-20'));
insert into Promotion
values('PR5784', 'Labour Day Promotion', TO_DATE('01-MAY-19'));
insert into Promotion
values('PR5398', 'Eid Mubarak Promotion', TO_DATE('24-MAY-19'));
insert into Promotion
values('PR5284', 'Eid Al Adha Promotion', TO DATE('31-JUL-19'));
insert into Promotion
values('PR8497', 'Merdeka Day Promotion',TO_DATE('31-AUG-19'));
insert into Promotion
values('PR9143', 'Awal Muharam Promotion', TO DATE('01-SEP-19'));
```

## insert into Promotion

values('PR9428', 'Malaysia Day Promotion', TO\_DATE('16-SEP-19'));

## insert into Promotion

values('PR1168', 'Deepavali Promotion', TO\_DATE('14-NOV-19'));

## insert into Promotion

values('PR1174', 'Childrens Day Promotion', TO\_DATE('20-NOV-19'));

## insert into Promotion

values('PR1194', 'Christmas Day Promotion', TO\_DATE('25-DEC-19'));

SQL> select * from Promotion;					
PROMOID	PROMO_TYPE	PROMO_DAT			
PR1294	Staff Privilege	13-DEC-20			
PR1456	Happy New Year Promotion	01-JAN-20			
PR2541	Chinese New Year Promotion	25-JAN-20			
PR2741	Valentine Day Promotion	14-FEB-20			
PR5784	Labour Day Promotion	01-MAY-19			
PR5398	Eid Mubarak Promotion	24-MAY-19			
PR5284	Eid Al Adha Promotion	31-JUL-19			
PR8497	Merdeka Day Promotion	31-AUG-19			
PR9143	Awal Muharam Promotion	01-SEP-19			
PR9428	Malaysia Day Promotion	16-SEP-19			
PR1168	Deepavali Promotion	14-NOV-19			
PROMOID	PROMO_TYPE	PROMO_DAT			
PR1174	Childrens Day Promotion	20-NOV-19			
PR1194	Christmas Day Promotion	25-DEC-19			
13 rows selected.					

## **Payment Data:**

Insert into Payment values('P1101', 'C100', 3, 0.1, 100); --2Adults, 1 Kid

Insert into Payment values('P1102', 'C200', 6, 0.1, 200); --4Adults, 2 Kids

Insert into Payment values('P1103', 'C300', 2, 0.1, 80); --2Adults

Insert into Payment values('P1104', 'C400', 4, 0.1, 160); --4Adults

Insert into Payment values('P1105', 'C500', 5, 0.1, 160); --3Adults, 2 Kids

Insert into Payment values('P1106','C600', 1, 0.1, 60);--1 international

Insert into Payment values('P1107','C700', 2, 0.1, 80); --2Adults

Insert into Payment values('P1108', 'C800', 1, 0.1, 40); --1Adult

Insert into Payment values('P1109', 'C900', 10, 0.1, 600);--10 International

Insert into Payment values('P1110', 'C110', 15, 0.1, 60); --1 international

SQL> select * from payment;							
PAYMENTI	CUSTOMER	TICKET_QNT	TAX_AMT	GRAND_TOTAL			
P1101	C100	3	.1	100			
P1102	C200	6	.1	200			
P1103	C300	2	.1	80			
P1104	C400	4	.1	160			
P1105	C500	5	.1	160			
P1106	C600	1	.1	60			
P1107	C700	2	.1	80			
P1108	C800	1	.1	40			
P1109	C900	10	.1	600			
P1110	C110	15	.1	60			
10 rows	selected.						

## 3.0 SQL Statements (Add, Delete, Modify)

### Scenario 1:

- One customer data was added into the Customer database.

insert into Customer values('C120', 'Jase', 'Falique', 'Malaysia', '0123434567', '970403');

```
SQL> insert into Customer
2 values('C120', 'Jason', 'Falique', 'Malaysia', '0123434567', '970403');
1 row created.
```

- One customer data was deleted from the Customer database.

delete from customer where customerID = 'C120';

```
SQL> delete from customer
  2 where customerID = 'C120';
1 row deleted.
```

- Update the customer phone number where the CustomerID = 'C500' from Customer database.

```
update Customer
set phoneno = '0122633555'
where customerid = 'C500';
select * from Customer
where customerid = 'C500';
```

```
SQL> update Customer
  2 set phoneno = '0122633555'
  3 where customerid = 'C500';
1 row updated.
SQL> select * from Customer
  2 where customerid = 'C500';
CUSTOMER CUST_FNAME
                         CUST_LNAME
                                         COUNTRY
                                                         PHONENO CUSTPASSPORT_IC
C500
                         Amri
                                         Malaysia
                                                       122633555
                                                                           900415
         Ahmad
```

#### Scenario 2:

Admin list out the quantity and the grand total of tickets that have been bought by the customer named 'Tisya'.

```
select c.customerid, t.ticket_qnt, t.grand_total
from customer c, ticket t
where c.customerid = t.customerid and c.cust_fname = 'Tisya';
```

### Scenario 3:

Admin update the ticket quantity and different ticket price were generated for customer which the customerID = 'C100'.

```
update payment
set ticket_qnt = 4, grand_total = 140
where customerid = 'C100';
```

### Scenario 4:

Admin list all the ticket type and ticket price that have been bought by the customer.

```
select c.customerid, c.cust_fname, c.cust_lname, t.ticket_type, t.ticket_price from Customer c, Ticket t where c.customerid = t.customerid;
```

SQL> select c.customerid, c.cust fname, c.cust lname, t.ticket type, t.ticket price from Customer c, Ticket t
where c.customerid = t.customerid; 3 CUSTOMER CUST\_FNAME CUST\_LNAME TICKET\_TYPE TICKET\_PRICE C100 Adult Tisya Amani 40 C100 Tisya Amani Adult 40 Kid C100 Tisya Amani 20 C200 Fahim Najmi Adult 40 C200 Fahim Najmi Adult 40 C200 Fahim Najmi Adult C200 Fahim Najmi Adult 40 0200 Fahim Najmi Kid 20 C200 Fahim Kid Najmi 20 C300 Johan Ahmad Adult 40 Ahmad C300 Johan Adult 40 CUSTOMER CUST\_FNAME CUST\_LNAME TICKET\_TYPE TICKET\_PRICE C400 Aqil Ali Adult 40 C500 Ahmad Amri Adult 40 Ahmad Amri C500 Adult 40 C500 Ahmad Amri 40 Adult C500 Ahmad Amri 20 Kid 20 C500 Ahmad Amri Kid 60 C600 International Sarah Sue C700 Adult Amirah Izzati 40 CUSTOMER CUST FNAME TICKET\_TYPE CUST LNAME TICKET\_PRICE C700 Amirah Izzati Adult 40 C800 Darwish Adult 40 Ahnaf C900 Nur International 60 Izzah C900 International 60 Nur Izzah C900 Nur International 60 Izzah C900 Nur International 60 Izzah C900 Nur Izzah International 60 CUST\_LNAME CUSTOMER CUST\_FNAME TICKET\_TYPE TICKET\_PRICE C900 International 60 Nur Izzah C110 Intan International 60 Sofea 35 rows selected.

#### Scenario 5:

All staff are assigned to Staff Privileged Promotion which staff need to join with the Promotion table.

```
select s.staffid, s.staff_name, p.promo_type
from staff s, promotion p
where s.promo_date = p.promo_date;
```

## Scenario 6:

List all promotion date and type that available on January.

## 4.0 Create two procedures:

#### Scenario 1:

Calculate New salary for Staff when they work overtime.

```
File Edit Format View Help

Create or replace procedure new_sal(v_sid IN NUMBER) is

cursor cur_sal is select staff_name, staff_phoneno, work_hour, total_othr, allowance_perhr, sal from staff
where staffid = v_sid;

v_sname staff.staff_name%type;
v_phone staff.staff_phoneno%type;
v_workhour staff.work_hour%type;
v_totalothr staff.total_oThr%type;
v_allowance staff.allowance_perhr%type;
v_sal staff.sal%type;
oT_payment number(5,2);
newsal number(8,2);

begin

open cur_sal;
loop
fetch cur_sal into v_sname, v_phone, v_workhour, v_totalothr, v_allowance, v_sal;
oT_payment := v_totalothr * v_allowance;
newsal := v_sal + oT_payment;
exit when cur_sal%notfound;

dbms_output.put_line ('The staff is: '||v_sname);
dbms_output.put_line ('The staff contact number: ||v_phone);
dbms_output.put_line ('The staff regular working hour: '||v_workhour);
dbms_output.put_line ('The staff salary per month: RM '||or_payment);
dbms_output.put_line ('The staff or payment: RM '||or_payment);
```

```
SQL> @"I:\Namirah PART\procedure1.txt"
Procedure created.
SQL> execute new_sal(5110);
The staff is: Fahrin Ahmad
The staff contact number: 127396381
The staff regular working hour: 8
The staff total OT per hour: 2
The staff salary per month: RM 70000
The staff OT payment: RM 15
The new salary for staff: RM 70015
PL/SQL procedure successfully completed.
SQL> execute new_sal(5190);
The staff is: Kate Moss
The staff contact number: 148905682
The staff regular working hour: 8
The staff total OT per hour: 1
The staff salary per month: RM 1550
The staff OT payment: RM 7.5
The new salary for staff: RM 1557.5
PL/SQL procedure successfully completed.
```

#### Scenario 2:

In business perspective, the management or marketing team will have to know the impact of each date. This is because, they need to know which date or promotion will bring more customers to the zoo in order to know whether their promotion is a success or not. Thus, a procedure is created to display the category and total of customers, based on their age categories(adult, kid, international) for a given date.

```
create or replace procedure show cust
(tDate ticket.ticket date%type)
as
tType ticket.ticket type%type;
ex chg EXCEPTION;
i number(2) :=1;
ad number(2) :=0;
kd number(2) :=0;
intr number(2) :=0;
cursor countcust
is
select ticket type
from ticket
where ticket date= tDate;
begin
open countcust;
loop
fetch countcust into tType;
IF countcust%NOTFOUND THEN
RAISE ex chg;
END IF;
exit when countcust%notfound;
dbms_output.put_line(i ||' : '||tType);
i:= i+1;
case when tType ='Adult' then ad:=ad+1;
when tType ='Kid' then kd:=kd+1;
when tType ='International' then intr:=intr+1;
end case;
end loop;
```

```
EXCEPTION
WHEN ex_chg THEN
DBMS_OUTPUT.PUT_LINE ('Oopps! No more customer for that date');
dbms_output.put_line('Total kid(s) : '||kd);
dbms_output.put_line('Total adult(s) : '||ad);
dbms_output.put_line('Total international(s) : '||intr);

close countcust;
end;
/
```

## Procedure created.

The procedure is called and the date to be observed is entered.

```
ACCEPT p_id PROMPT 'Enter the date to observe: '
declare
dDate Date := '&date';
begin
DBMS_OUTPUT.put_line('The customer(s) that came for date '||
dDate||' are as follows: ');
show_cust(dDate);
end;
/
```

During 25-SEP-19, only 2 adults came to the zoo. It be inferred that this may happen because 25-SEP-19 is on Wednesday where mostly people are working during weekdays

```
Enter value for date: 25-SEP-19
old 2: dDate Date := '&date';
new 2: dDate Date := '25-SEP-19';
The customer(s) that came for date 25-SEP-19 are as follows:
1 : Adult
2 : Adult
Oopps! No more customer for that date
Total kid(s) : 0
Total adult(s) : 2
Total international(s) : 0

PL/SQL procedure successfully completed.
```

During 1-FEB-19, no one came to the zoo. It be inferred that this may happen because no special event happen on the day or it is on Friday where mostly people are working during weekdays.

```
Enter value for date: 1-FEB-19
old 2: dDate Date := '&date';
new 2: dDate Date := '1-FEB-19';
The customer(s) that came for date 01-FEB-19 are as follows:
Oopps! No more customer for that date
Total kid(s) : 0
Total adult(s) : 0
Total international(s) : 0

PL/SQL procedure successfully completed.
```

However, on 4-JUN-19, more people came to the zoo eventhou it is on Tuesday. This is because 4-JUN-19 is a school holiday and parents tend to bring their kid to a trip to the zoo.

```
Enter value for date: 4-JUN-19
old
      2: dDate Date := '&date';
      2: dDate Date := '4-JUN-19';
The customer(s) that came for date 04-JUN-19 are as follows:
1 : Adult
 : Adult
 : Adult
 : Adult
 : Kid
6 : Kid
Oopps! No more customer for that date
Total kid(s) : 2
Total adult(s) : 4
Total international(s) : 0
PL/SQL procedure successfully completed.
```

#### **5.0 Create two functions:**

#### Scenario 1:

New tax has been charged for the Customer as the Zoo trip are having panda, penguin and unique camelion visit. Each new tax been charged once only for the customer grand amount.

```
tripPrice - Notepad
 File Edit Format View Help
create or replace function trip_price (v_grandAmt in payment.ticket_qnt%type)
 return varchar2
 v_incrtax number(5,2);
 begin
           if v_grandAmt <= 140 AND v_tiketqnt <= 4 then
    v_incrtax := 0.15;
elsif v_grandAmt <= 250 AND v_tiketqnt >= 4 then
    v_incrtax := 0.2;
           elsif v_grandAmt <= 400 AND v_tiketqnt >= 8 then
                     \tilde{v}_incrtax := 0.25;
           else
                     v_incrtax := 0.4;
           end if;
 return v_incrtax;
 end trip_price;
SQL> @C:\Users\User\Documents\database\tripPrice.txt
Function created.
```

```
alltrip_price - Notepad
File Edit Format View Help
prompt
              -----;
              prompt
prompt
prompt
prompt
Accept v_customerID prompt 'Enter the Customer ID (one ID for a group trip): '
Accept v_ticketqnt prompt 'Enter the ticket quantity: '
declare
              v_custfname customer.cust_fname%type;
v_custlname customer.cust_lname%type;
              v_country customer.country%type;
v_ticketqnt number(3);
              v_incrtax number(5,2);
v_grandAmt number(5,2);
v_ticketAmt number(5,2);
begin
              select c.cust_fname, c.cust_lname, c.country, p.ticket_qnt, p.grand_total
into v_custfname, v_custlname, v_country, v_ticketqnt, v_grandAmt
from customer c INNER JOIN payment p
ON c.customerID = p.customerID
where p.customerID = &v_customerID;
              v_incrtax := trip_price(v_grandAmt,v_ticketqnt);
v_ticketAmt := v_grandAmt + (v_grandAmt*v_incrtax);
              dbms_output.put_line('-----');
dbms_output.put_line('The customer name: '||v_custfname||' '||v_custlname);
dbms_output.put_line('The customer country: '||v_country);
dbms_output.put_line('Total ticket quantity: '||v_ticketqnt);
dbms_output.put_line('Ticket increment tax: '||v_incrtax*100||' percent from total price.');
dbms_output.put_line('Ticket grand amount: RM '||v_ticketAmt);
dbms_output.put_line('-------');
end;
```

```
SQL> @C:\Users\User\Documents\database\calltrip price.txt
------Welcome to Zoo Trip------
.....*Attention*.....
1. There's additional tax implemented on panda, penguin and unique chameleons visit.
Just use one customerID for one trip.
Compulsory Note: Please insert the single quotation infront and back customerID! - Eg: 'C1XX'
-----Thank you and enjoy your trip-----
Enter the Customer ID (one ID for a group trip): 'C200'
Enter the ticket quantity: 6
old 16: where p.customerID = &v_customerID;
new 16: where p.customerID = 'C200';
-----NEW GRAND AMOUNT OF TICKET-----
The customer name: Fahim Najmi
The customer country: Malaysia
Total ticket quantity: 6
Ticket increment tax: 20 percent from total price.
Ticket grand amount: RM 240
PL/SQL procedure successfully completed.
SQL> @C:\Users\User\Documents\database\calltrip_price.txt
.....*Attention*....

    There's additional tax implemented on panda, penguin and unique chameleons visit.

Just use one customerID for one trip.
Compulsory Note: Please insert the single quotation infront and back customerID! - Eg: 'C1XX'
-----Thank you and enjoy your trip------
Enter the Customer ID (one ID for a group trip): 'C300'
Enter the ticket quantity: 3
old 16: where p.customerID = &v_customerID;
new 16: where p.customerID = 'C300';
-----OF TICKET-----NEW GRAND AMOUNT OF TICKET------
The customer name: Johan Ahmad
The customer country: Malaysia
Total ticket quantity: 2
Ticket increment tax: 15 percent from total price.
Ticket grand amount: RM 92
PL/SQL procedure successfully completed.
```

#### Scenario 2:

Customer may check promotion prices prior the promotion date as mentioned in the Zoo Adult Promotion Price but the purchase slot are not offered yet for all customers.

```
promoPrice - Notepad
File Edit Format View Help
create or replace function promo_price
(v_promodate in promotion.promo_date%type, v_promoid in promotion.promoid%type)
return varchar2
v_promoprice number(5,2);
begin
         if v_promodate = '25-DEC-19' AND v_promoid = 'PR1194' then
         v_promoprice := 26;
elsif v_promodate = '01-JAN-20' AND v_promoid = 'PR1456' then
         v_promoprice := 20;
elsif v_promodate = '25-JAN-20' AND v_promoid ='PR2541' then
         v_promoprice := 18;
elsif v_promodate = '14-FEB-20' AND v_promoid ='PR2741' then
                  v_promoprice := 14;
         else
                  v_promoprice := 30;
         end if:
return v_promoprice;
end promo_price;
```

```
SQL> @C:\Users\User\Documents\database\promoPrice.txt

Function created.
```

```
allpromo - Notepad
File Edit Format View Help
       prompt
prompt
prompt
prompt
prompt
Accept v_promodate prompt 'Enter the promotion date: Accept v_promoid prompt 'Enter the promotion ID: '
declare
        v_promoid promotion.promoid%TYPE;
v_promotype promotion.promo_type%type;
v_promodate promotion.promo_date%type;
v_promoprice number(3);
        cursor cur_promo is
select promoid, promo_type, promo_date
into v_promoid, v_promotype, v_promodate
from promotion
        where promo_date = &v_promodate;
begin
        open cur_promo;
        loop
fetch cur_promo into v_promoid, v_promotype, v_promodate;
        close cur_promo;
end;
```

```
SQL> @C:\Users\User\Documents\database\callpromo.txt
                     -----Zoo Adult Promotion Price------

    The original ticket price for adult - RM40.00 per head.

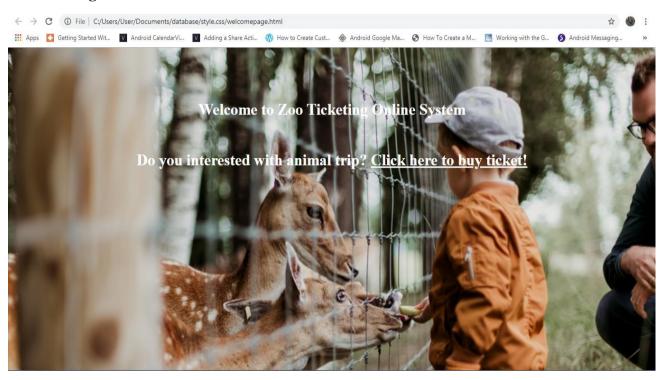
2. The promotion are available for selected date only: '25-DEC-19', '01-JAN-20', '25-JAN-20', '14-FEB-20' 3. Code for Chrismast Day(PR1194), Happy New Year(PR2541), Chinese New Year(PR1456), Valentine Day(PR2741)
4. This system are for checking the promotion price and the purchase slot are not available yet.
Compulsory Note: Please insert single quotation for PromotionID and Date as well! - Eg:'PR1XX'
                -----Enjoy your promotion month-----
Enter the promotion date: '14-FEB-20'
Enter the promotion ID: 'PR2741'
old 12:
new 12:
                where promo_date = &v_promodate;
                where promo_date = '14-FEB-20';
 -----ADULT PROMOTION PRICE-----
Customer promotion: Valentine Day Promotion
Customer promotion date: 14-FEB-20
Adult ticket price for the selected promotion(per head): RM 14
PL/SQL procedure successfully completed.
```

## **Member Contribution for all tasks:**

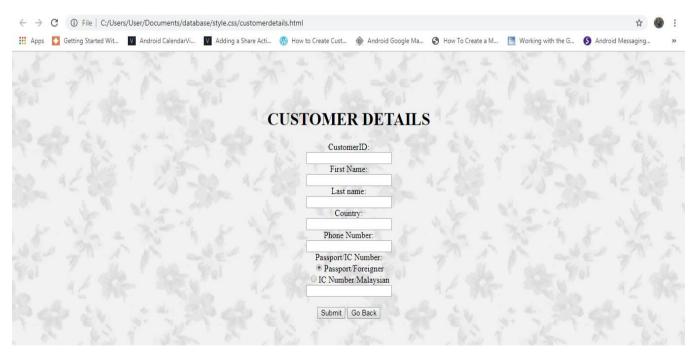
Member's Name & Matric Number	Task		
Aishah Nabilah 1625084	<ul> <li>Project significant</li> <li>Create table ticket</li> <li>Insert data ticket</li> <li>Create data dictionary for ER Diagram ticket</li> <li>Create Zoo Ticketing System ERD</li> <li>Create procedures for Scenario 2</li> </ul>		
Nur Afifah 1810016	<ul> <li>Insert data promotion</li> <li>Create data dictionary for ER         <ul> <li>Diagram promotion</li> </ul> </li> <li>SQL Statement (Add, Delete,</li></ul>		
Nurul Ain Shahirah 1818540	<ul> <li>Create table customer and promotion</li> <li>Insert data customer</li> <li>Create data dictionary for ER         <ul> <li>Diagram customer table</li> </ul> </li> <li>SQL Statement (Add, Delete,</li></ul>		
Siti Noor Namirah Hasinah 1816818	<ul> <li>Background Project</li> <li>Create table payment and staff</li> <li>Insert data payment and staff</li> <li>Create data dictionary for ER Diagram payment and staff table</li> <li>SQL Statement (Add, Delete, Modify) for Scenario 5</li> <li>Create procedures for Scenario 1</li> </ul>		

## 6.0 Web Application for Zoo Ticketing System

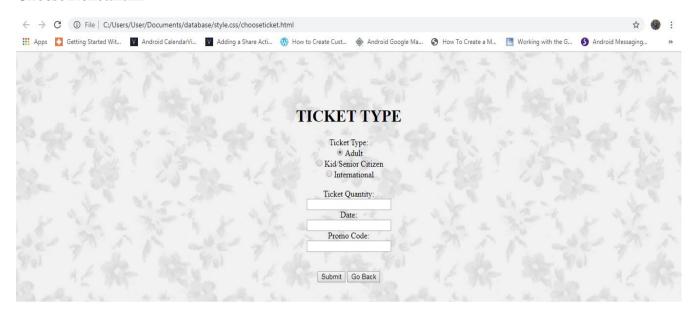
## WelcomePage.html



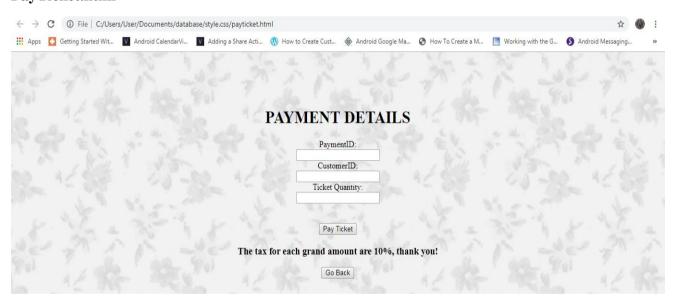
## **CustomerDetails.html**



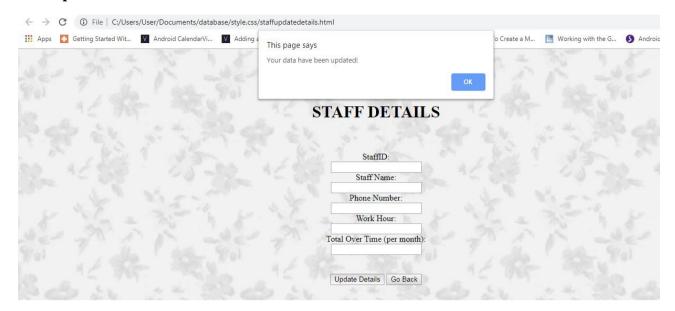
## ChooseTicket.html



## PayTicket.html



## StaffUpdateDetails.html



### 7.0 Conclusion

As a conclusion, completing this Group Project Assignment we have learned about how we should contribute with group members and teamwork skills while doing this assignment. We also learned how to manage our time wisely and how to divide the tasks fairly among group members. Basically, our Group Project Assignment is about Zoo Ticketing System which we allow users to buy zoo online ticket by using our system. Furthermore, we created this database is to ease the process of storing, updating, add, calculating salary and promotions for the staff and customers that works and comes to the zoo.

#### 8.0 References

Buy Ticket Online - Get Zoo Negara Ticket. (n.d.). Retrieved from <a href="https://ztpzoonegara.com/">https://ztpzoonegara.com/</a>.

Zoo Taiping Online Entrance Ticket Sale. (n.d.).

Retrieved from https://ticket.zootaiping.gov.my/selection2.aspx