UNIVERSITI TEKNOLOGI MARA (UITM)

ICT501

DATABASE MANAGEMENT SYSTEMS

TITLE

StarSky Information System

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1.0 Introduction To Company Background

- SERI SEGI GROUP
- Established in 1995
- Incorporated in 2003
- Dedicated staff of more than 400 employees nationwide

The company's priority is to deliver the best food & beverages services to cater domestic and global market demands, with the support of owned fully integrated central kitchen (FICK). We expanded the business portfolio with our event management packages with experienced team and involved with comprehensive maintenance industries in Klang Valley for government and private sectors. Segi Seri owns various unique venues, one of which is known as Laman Kayangan located in Seksyen 7, Shah Alam a fully furnished exclusive marquee tent for corporate functions, social gatherings and weddings.

In addition, Segi Seri has established our name and reputation in both government and private healthcare institutions, such as Hospital Pusrawi, Hospital Sg Buloh, National Cancer Institute and Hospital Pulau Pinang. We have been supplying centralised meal trays, pack meals and therapeutic diets to cater for different patient needs. Our consistent efforts and good practices has led to Hospital Sg Buloh being awarded the Good Manufacturing Practice (GMP) status. We have attained the Halal Accreditation and 4 star rating from SME Corp under the SCORE program. The company has also initiated strategic partnerships and built on good reputation with major clients such as The Setia City Convention Centre (SACC), local city councils, and various government agencies.

The fully integrated central kitchen (FICK) of Segi Seri are fully equipped with chillers, blast freezers, and conveyor line, all to ensure foods that are produced, prepared and served are of the best quality and meets the hygienic satisfactory standards. The new upgraded fully integrated central kitchen (FICK) of 40,000 sq ft are expected for completion by the end of 2018.

Segi Seri is moving towards achieving its goals and mission, and poised for further diversification. We aim to set the standards higher in line with our stated missions to be at the forefront of various industries and to be the leading company in the ever growing halal food processing and packaging industry. Therefore Segi Seri has our own Specialized Training Centre - SS Academy, located at Wisma Segi Seri Shah Alam.

Nowadays, Segi Seri take a tender and open the restaurant at Kedah, which is located at the Menara Alor Setar.The name of the restaurant is Star Sky Restaurant & Lounge.This restaurant provide food services such as for wedding event,corporate event or can be a restaurant that serve great food.This restaurant recently opened 3 March 2019, and greatly improved time by time.

2.0 Problem Statement

To what extent does the efficiency of computers' data management and control about any reservation currently being used by SEGI SERI GROUP,STAR SKY Restaurant according to the situation?

All the computers are managed by an organization. It includes computers being used by staff, manager and president to save any important reservation data for the event. Therefore,the current process of managing computers data is very crucial as it involves lots of data. Unfortunately, almost all record keeping practice of the computers' data is done manually. This means all the data is being recorded in papers, put it in files and later on the files will be piled up in the cabinet. Thereafter there is a strong need to keep track on the record. Using the manual practice, it will be challenging to deal with lots of data. That is because companies need to save many reservations that have been made. Such as venues, packages, supply food, content, accessories and others for any events. Therefore, events are usually made every time due to season. Furthermore, if the manual records being destroyed due to natural hazard such as fire or missing, the data will be lost forever and nothing can be done to obtain it. On the other hand, the organization staff needs a systematic, effective and

efficient mechanism to manage the computers' data in order to fulfil their beneficiaries' needs in order to. Moreover computer data management and control about any reservation not only secure the data and information, but also reduce the process that will make the process of payment and reservation more efficient and effective.So with this system it will ensure the data being protected and easy to control and updated based on the particular department.

3.0 Objective

i.   To help Seri Segi Group,Star Sky Restaurant in organizing and collecting all information in one database system that can be accessed easily and systematically so that the company could achieve a good reputation of providing excellent services and customer satisfaction.

ii.   To develop a comprehensive database that can govern computers' data management for its beneficiaries

iii.   Iii. To help Seri Segi Group,Star Sky Restaurant in creating the best process in the simplest way to make their works more easier in managing the data and transaction method.

4.0 Entity-Relationship Diagram (ERD)
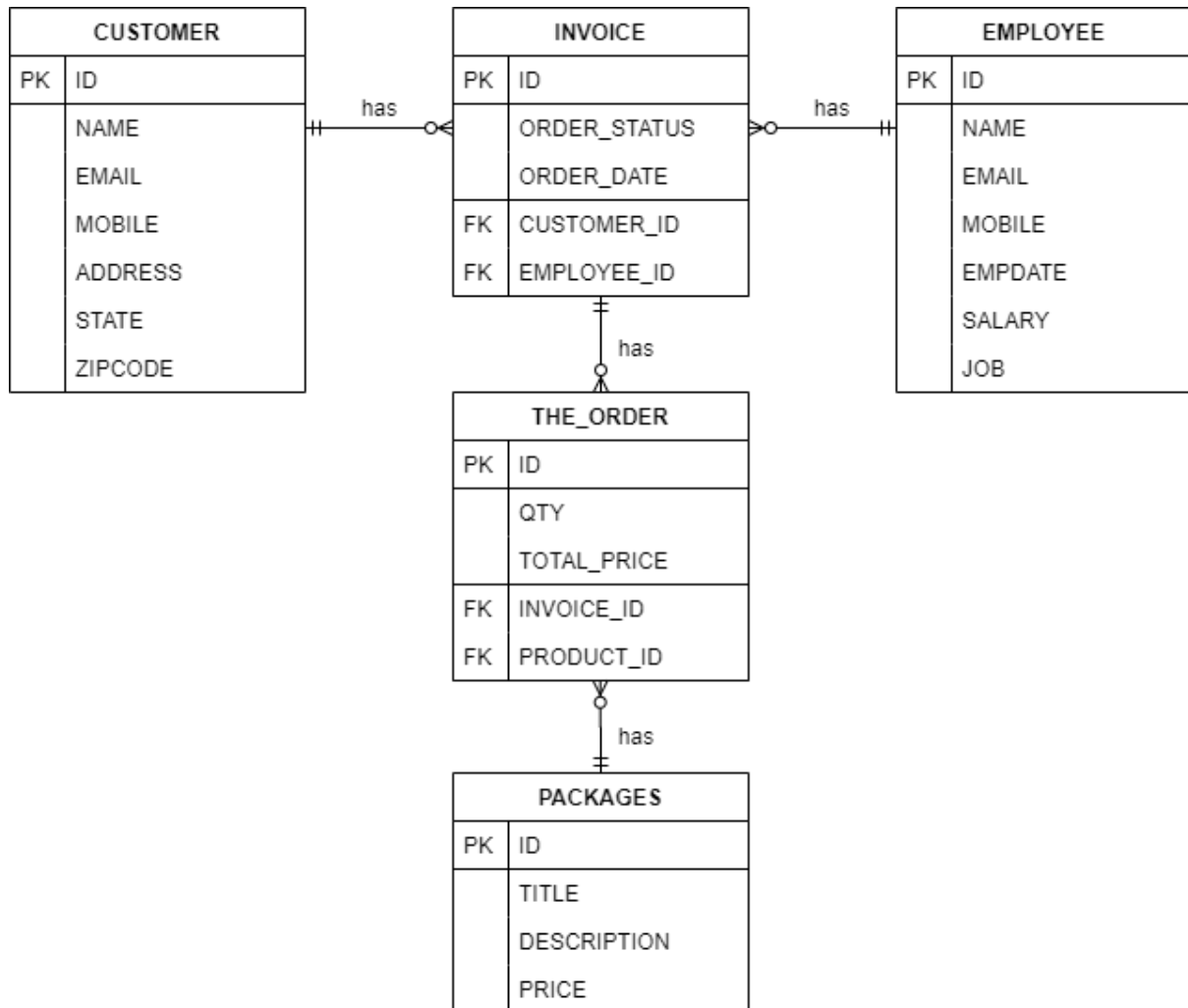
5.0 3NF Relational Schema

First Normal Form (1NF)

1NF(<u>CUSTOMER.ID</u>, <u>EMPLOYEE.ID</u>, <u>PACKAGES.ID</u>, <u>INVOICE.ID</u>, <u>THE_ORDER.ID</u>, CUSTOMER.NAME, CUSTOMER.EMAIL, CUSTOMER.MOBILE, CUSTOMER.ADDRESS, CUSTOMER.STATE, CUSTOMER.ZIPCODE, EMPLOYEE.NAME, EMPLOYEE.EMAIL, EMPLOYEE.MOBILE, EMPLOYEE.EMPDATE, EMPLOYEE.SALARY, EMPLOYEE.JOB, TITLE, DESCRIPTION, PRICE, QTY, TOTAL_PRICE)

Second Normal Form (2NF)

Table : CUSTOMER

Staff (<u>ID</u>, NAME, EMAIL, MOBILE, ADDRESS, STATE, ZIPCODE)

Table : EMPLOYEE

Payment (<u>ID</u>, NAME, EMAIL, MOBILE, EMPDATE, SALARY, JOB)

 Table : PACKAGES

Customer (<u>ID</u>, TITLE, DESCRIPTION, PRICE)

Table : INVOICE

Reservation (<u>ID</u>, ORDER_STATUS, ORDER_DATE)

Table : THE_ORDER

Booking (<u>ID</u>, QTY, TOTAL_PRICE)

Third Normal Form (3NF)

Table : CUSTOMER

Staff (<u>ID</u>, NAME, EMAIL, MOBILE, ADDRESS, STATE, ZIPCODE)

Table : EMPLOYEE

Payment (<u>ID</u>, NAME, EMAIL, MOBILE, EMPDATE, SALARY, JOB)

Table : PACKAGES

Customer (<u>ID</u>, TITLE, DESCRIPTION, PRICE)

Table : INVOICE

Reservation (<u>ID</u>, ORDER_STATUS, ORDER_DATE, <u>CUSTOMER_ID*</u>, <u>EMPLOYEE. ID*</u>)

Table : THE_ORDER

Booking (<u>ID</u>, QTY, TOTAL_PRICE, <u>INVOICE_ID*</u>, <u>PRODUCT_ID*</u>)

DATABASE SYSTEM MANU :

DATABASE SYSTEM CUSTOMER'S FORM:

DATABASE SYSTEM INVOICE FORM:

DATABASE SYSTEM INVOICE' REPORT:

DATABASE SYSTEM ORDER'S REPORT:

DATABASE SYSTEM EMPLOYEE'S REPORT:

DATABASE SYSTEM PACKAGES'S REPORT:

Packages

	Title ↑≡	Description	Price
✎	Wedding	Nasi Minyak, Ayam masak merah, Daging masak kicap	38

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DATABASE SYSTEM CUSTOMER'S REPORT

Customer

	Name ↑≡	Mobile	Email	Address	State	Zipcode
✎	Aiman Haziq bin Al Jawari	0136248273	aimanhaziq5481@gmail.com	A 16 Jln Ss19/6 Ss19 Petaling Jaya	Selangor	47,500
✎	Ainun Najihah binti Muhadir	0192539164	gee.haa78@gmail.com	6 Jln 6/34B Off Jln Kepong Sri Edaran Industrial Park	Kuala Lumpur	52,100
✎	Mohammad Izzat bin Mohd Zaini	0185264527	izzat.zaini99@gmail.com	C 17 Jln 7 Kaw 16 Taman Intan Klang	Selangor	47,100
✎	Muhammad Aliff bin Md Norman	0174524728	aliffnorman@gmail.com	6 Jln 6/34B Off Jln Kepong Sri Edaran Industrial Park	Kuala Lumpur	52,100
✎	Muhammad Ariff Nazhan bin Asri	60146449401	ariffnazz@gmail.com	No. 24 Lorong BLM 3/9 Bandar Laguna Merbok	Kedah	8,000
✎	Zul Haiqal bin Abdul Hakeem	0137164029	zulqal@gmail.com	No. 14G Jalan Industry Pbp 1/1 Taman Industry Pusat Puchong	Selangor	47,100

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DATA DEFINITION LANGUAGE:

DROP TABLE:

drop table the_order;

drop table invoice;

drop table packages;

drop table customer;

drop table employee;

CREATE TABLE:

1)

```
create table customer (
    id              number not null constraint customer_id_pk primary key,
    name            varchar2(255) not null,
    mobile          varchar2(11) not null,
    email           varchar2(255) not null,
    address         varchar2(255) not null,
    state           varchar2(255) not null,
    zipcode         integer not null
)
;
```

2)

```
create table employee (
    id              number not null constraint employee_id_pk primary key,
    name            varchar2(255) not null,
    email           varchar2(255) not null,
    mobile          varchar2(11) not null,
    empdate         date,
    salary          varchar2(4000)
)
;
```

3)

```
create table packages (
    id                      number not null constraint packages_id_pk primary key,
    title                   varchar2(10) not null,
    description             varchar2(50),
    price                   varchar2(4000) not null
)
;
```

4)

```
create table invoice (
    id                      number not null constraint invoice_id_pk primary key,
    customer_id             number
                            constraint invoice_customer_id_fk
                            references customer on delete cascade not null,
    employee_id             number
                            constraint invoice_employee_id_fk
                            references employee on delete cascade not null,
    order_status            integer not null,
    order_date              date not null
);
```

5)

```
create table the_order (
    id                      number not null constraint the_order_id_pk primary key,
    invoice_id              number
                            constraint the_order_invoice_id_fk
                            references invoice on delete cascade not null,
    product_id              number not null,
    qty                     integer not null,
    total_price             varchar2(4000) not null
);
```

DATA MANIPULATION LANGUAGE

INSERT DATA:

1)

insert into employee (

    id,

    name,

    email,

    mobile,

    empdate,

    salary

) values (

    224912112141969294293774741482349300853,

    'Gricelda Luebbers',

    'gricelda.luebbers@aaab.com',

    'Ligula',

    sysdate - 93,

    'In massa pharetra, id mattis risus rhoncus.Cras vulputate porttitor ligula. Nam semper diam suscipit elementum sodales. Proin sit amet massa eu lorem commodo ullamcorper.Interdum et malesuada fames ac ante ipsum primis.'

);

2)

insert into packages (

    id,

    title,

    description,

    price

) values (

    224912112141970503219594356111524007029,

    'Nonmolesti',

    'Lacinia arcu in massa pharetra, id mattis risus rh',

    'Tincidunt. Vestibulum ante ipsumprimis in faucibus orci luctus et ultrices posuere cubilia Curae; Proin vulputate placerat pellentesque. Proin viverra lacinialectus, quis

consectetur mi venenatis nec. Donec convallis sollicitudin elementum. Nulla facilisi. In posuere blandit leoeget malesuada. Vivamus efficitur ipsum tellus, quis posuere mi maximus vitae. Quisque tortor odio, feugiat eget sagittisvel, pretium ut metus. Duis et commodo arcu.'

);

3)

```sql
insert into invoice (
    id,
    customer_id,
    employee_id,
    order_status,
    order_date
) values (
    224912112141971712145413970740698713205,
    224912112141968085367955126853174594677,
    224912112141969294293774741482349300853,
    7,
    sysdate - 32
)
insert into the_order (
    id,
    invoice_id,
    product_id,
    qty,
    total_price
) values (
    224912112141972921071233585369873419381,
    224912112141971712145413970740698713205,
    75,
    85,
    'Malesuada fames ac ante ipsum primis in faucibus. Ut id nulla ac sapien suscipit tristique ac volutpat risus.Phasellus vitae ligula.'
);
```

6.0 Interview Session

      i.   The process for taking an order from customer?

For taking any order from customer, they have to inform the staff and the staff will make a reservation regarding on which catering packages they wanted to.

      ii.   The process for making any reservation?

For any reservation process the sales and marketing department need to give the details about customer's order to food and beverage department. That department will manage and operate the item needed such as package and others to reserve based on company rules and procedures.

      iii.   The payment process for the event?

Once the booking is done, when the make a payment, the order_status will be changed by the staff from pending to processing, if the services is done, the data will be considered as completed.

      iv.   What the important entity, attributes and relationships for the operation and process?

The main entity packages, invoice, orders for each process, and customer's demand for the event. For the attributes and relationships its depending on process for the reservation will included.

7.0 Queries

```
1  INSERT INTO CUSTOMER(ID, NAME, MOBILE, EMAIL, ADDRESS, STATE, ZIPCODE)
2  VALUES (10070, 'FATIN AMALIA BINTI KHUSYAIRI', '0142546564', 'tekanxdapat@gmail.com', 'NO.23, TAMAN SINAR BAHAGIA ', 'IPOH', 07890);
3
4
5
6
7
8
```

Results Explain Describe Saved SQL History

1 row(s) inserted.

```
1  SELECT E.NAME AS , I.CUSTOMER_ID, I.ORDER_DATE
2  FROM    EMPLOYEE E JOIN INVOICE I
3  ON      (E.ID = I.EMPLOYEE_ID);
4
5
```

Results Explain Describe Saved SQL History

NAME	CUSTOMER_ID	ORDER_DATE
Amirul Ariff bin Zulfikli	10004	06/13/2020
Amirul Ariff bin Zulfikli	10004	06/10/2020
Muhammad Ariff Nazhan bin Asri	10022	08/06/2020
Muhammad Ariff Nazhan bin Asri	10021	06/20/2020
Muhammad Ariff Nazhan bin Asri	10003	06/19/2020

```
1  SELECT * FROM CUSTOMER
```

Results Explain Describe Saved SQL History

ID	NAME	MOBILE	EMAIL	ADDRESS	STATE	ZIPCODE
10003	Muhammad Aliff bin Md Norman	0174524728	aliffnorman@gmail.com	6 Jln 6/34B Off Jln Kepong Sri Edaran Industrial Park	Kuala Lumpur	52100
10004	Aiman Haziq bin Al Jawari	0136248273	aimanhaziq5481@gmail.com	A 16 Jln Ss19/6 Ss19 Petaling Jaya	Selangor	47500
10001	Muhammad Ariff Nazhan bin Asri	60146449401	ariffnazz@gmail.com	No. 24 Lorong BLM 3/9 Bandar Laguna Merbok	Kedah	8000
10022	Ainun Najihah binti Muhadir	0192539164	gee.haa78@gmail.com	6 Jln 6/34B Off Jln Kepong Sri Edaran Industrial Park	Kuala Lumpur	52100

```
1  SELECT ID, NAME, SALARY*12
2  FROM    EMPLOYEE;
3
```

Results Explain Describe Saved SQL History

ID	NAME	SALARY*12
30023	Amirul Ariff bin Zulfikli	42240
30002	Muhammad Ariff Nazhan bin Asri	78000
30003	Puteri Anis Bin Mohtadzar	31200

3 rows returned in 0.02 seconds   Download

```
1 SELECT ID, EMPLOYEE_ID, ORDER_DATE
2 FROM   INVOICE
3 WHERE  ORDER_DATE LIKE '%20'
4 ORDER BY ORDER_DATE
5
6
```

Results Explain Describe Saved SQL History

ID	EMPLOYEE_ID	ORDER_DATE
123	30023	06/10/2020
102	30023	06/13/2020
104	30002	06/19/2020
103	30002	06/20/2020
122	30003	08/06/2020

```
1 SELECT NAME, SALARY
2 FROM   EMPLOYEE
3 WHERE  SALARY >
4            (SELECT SALARY
5             FROM   EMPLOYEE
6             WHERE  NAME = 'Puteri Anis Bin Mohtadzar');
7
8
```

Results Explain Describe Saved SQL History

NAME	SALARY
Amirul Ariff bin Zulfikli	3520
Muhammad Ariff Nazhan bin Asri	6500

```
1 SELECT NAME, (SYSDATE-EMPDATE)/7 AS WEEKS
2 FROM   EMPLOYEE
3 WHERE  JOB = 'MANAGER';
4
5
```

Results Explain Describe Saved SQL History

NAME	WEEKS
Amirul Ariff bin Zulfikli	.65819940476190476190476190476190476190476190476190 4
Muhammad Ariff Nazhan bin Asri	6.9439136904761904761904761904761904761904761 9

```
1 SELECT NAME, TO_CHAR(EMPDATE, 'DD-Mon-YYYY')
2 FROM   EMPLOYEE
3 WHERE  EMPDATE > TO_DATE('01-Jun-20','DD-Mon-RR');
4
5
6
```

Results Explain Describe Saved SQL History

NAME	TO_CHAR(EMPDATE,'DD-MON-YYYY')
Amirul Ariff bin Zulfikli	26-Jun-2020
Puteri Anis Bin Mohtadzar	24-Jun-2020

```
1 SELECT AVG(SALARY) AS AVERAGE_SALARY, MAX(SALARY) AS MAX_SALARY,
2        MIN(SALARY) AS MINIMUM_SALARY, SUM(SALARY) AS SUM_ALL_SALARY
3 FROM   EMPLOYEE
4 WHERE  JOB = 'MANAGER';
5
```

Results Explain Describe Saved SQL History

AVERAGE_SALARY	MAX_SALARY	MINIMUM_SALARY	SUM_ALL_SALARY
5010	6500	3520	10020

```
1 SELECT ID, NAME, SALARY,
2     CASE JOB WHEN 'MANAGER' THEN 1.10*SALARY
3              WHEN 'STAFF' THEN 1.15*SALARY
4     ELSE    SALARY END    "NEW SALARY"
5 FROM EMPLOYEE;
6
```

Results Explain Describe Saved SQL History

ID	NAME	SALARY	NEW SALARY
30023	Amirul Ariff bin Zulfikli	3520	3872
30002	Muhammad Ariff Nazhan bin Asri	6500	7150
30003	Puteri Anis Bin Mohtadzar	2600	2990

3 rows returned in 0.01 seconds   Download

```
1 SELECT ID, NAME, SALARY,
2     CASE JOB WHEN 'MANAGER' THEN 1.10*SALARY
3              WHEN 'STAFF' THEN 1.15*SALARY
4     ELSE    SALARY END    "NEW SALARY"
5 FROM EMPLOYEE;
6
```

Results Explain Describe Saved SQL History

ID	NAME	SALARY	NEW SALARY
30023	Amirul Ariff bin Zulfikli	3520	3872
30002	Muhammad Ariff Nazhan bin Asri	6500	7150
30003	Puteri Anis Bin Mohtadzar	2600	2990