LOMBA KOMPETENSI SISWA SMK
TINGKAT PROVINSI KALIMANTAN SELATAN
TAHUN 2019

TEST PROJECT

BIDANG LOMBA: *IT Software Solutions for Business*

ESEMKA RESTAURANT PROJECT OVERVIEW

ESEMKA Restaurant wants to develop a new application to help them manage their day to day operation. Their main requirements are:

1. Application to store restaurant data such as: category, menu, and promotion
2. Record and manage customer orders
3. Process customer payment
4. Show payment history during certain date range.
5. Future update to facilitate catering business

In this Test Project, you are asked to develop this application by following the requirements given on the Test Project. There will be several project resources given to you, they are:

1. **Entity Relationship Diagram (ERD) and Data Dictionary**

   This will be used to guide you create the database. Ensure that all entities (data type, size, relationship, and criteria) created on the database are matched with the given ERD and Data Dictionary.
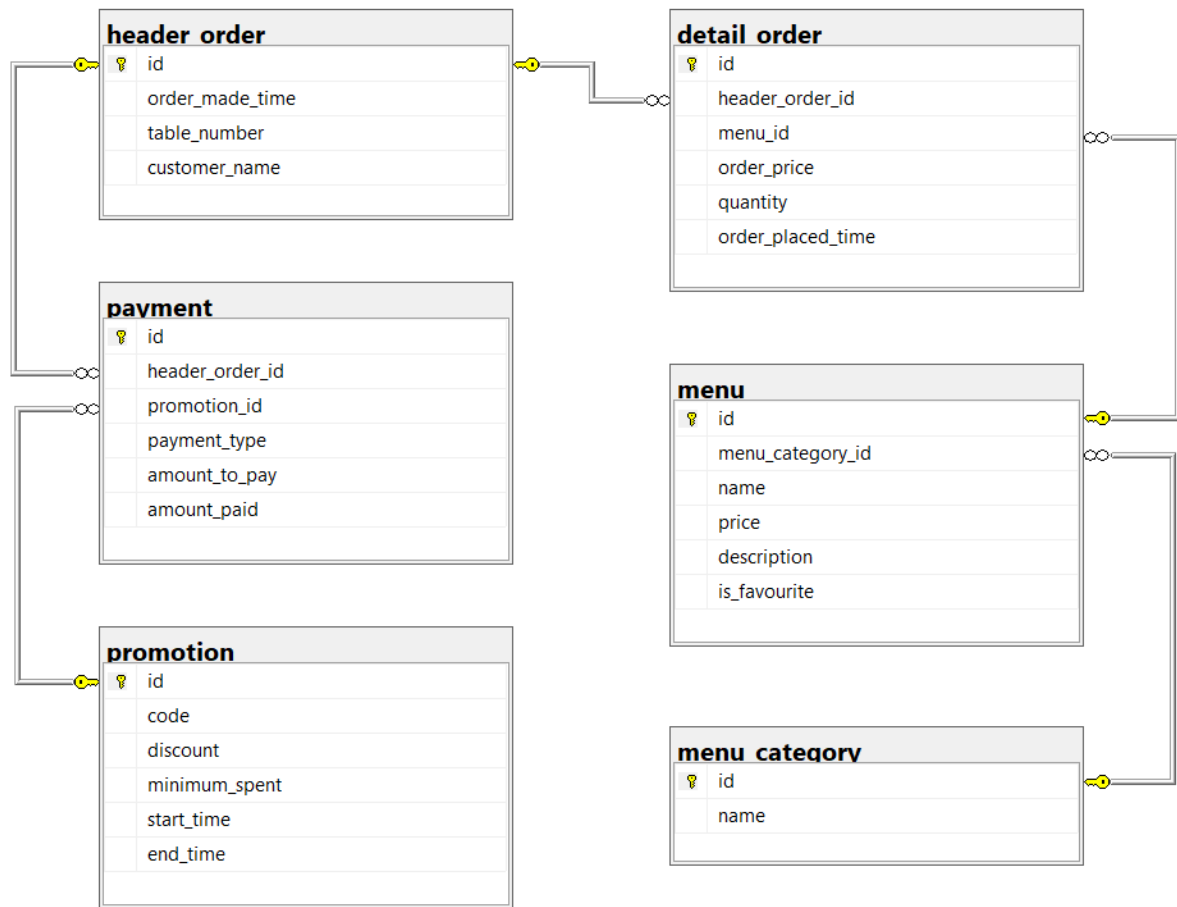
2. **Example Design (Wireframe) of desired Information System**

   This wireframe is used to give you design guidelines of all required forms. Please note that your form designs are not limited to these examples.

3. **Data Files**

   The data files will be used to support your test and development of the information system of each module. Please use this data files in the development. You can use other resources outside the given data files, only if it is instructed in the module.

ESEMKA RESTAURANT - ENTITY RELATIONSHIP DIAGRAM

header_order
- 🔑 id
- order_made_time
- table_number
- customer_name

payment
- 🔑 id
- header_order_id
- promotion_id
- payment_type
- amount_to_pay
- amount_paid

promotion
- 🔑 id
- code
- discount
- minimum_spent
- start_time
- end_time

detail_order
- 🔑 id
- header_order_id
- menu_id
- order_price
- quantity
- order_placed_time

menu
- 🔑 id
- menu_category_id
- name
- price
- description
- is_favourite

menu_category
- 🔑 id
- name

ESEMKA RESTAURANT - ENTITY RELATIONSHIP DIAGRAM

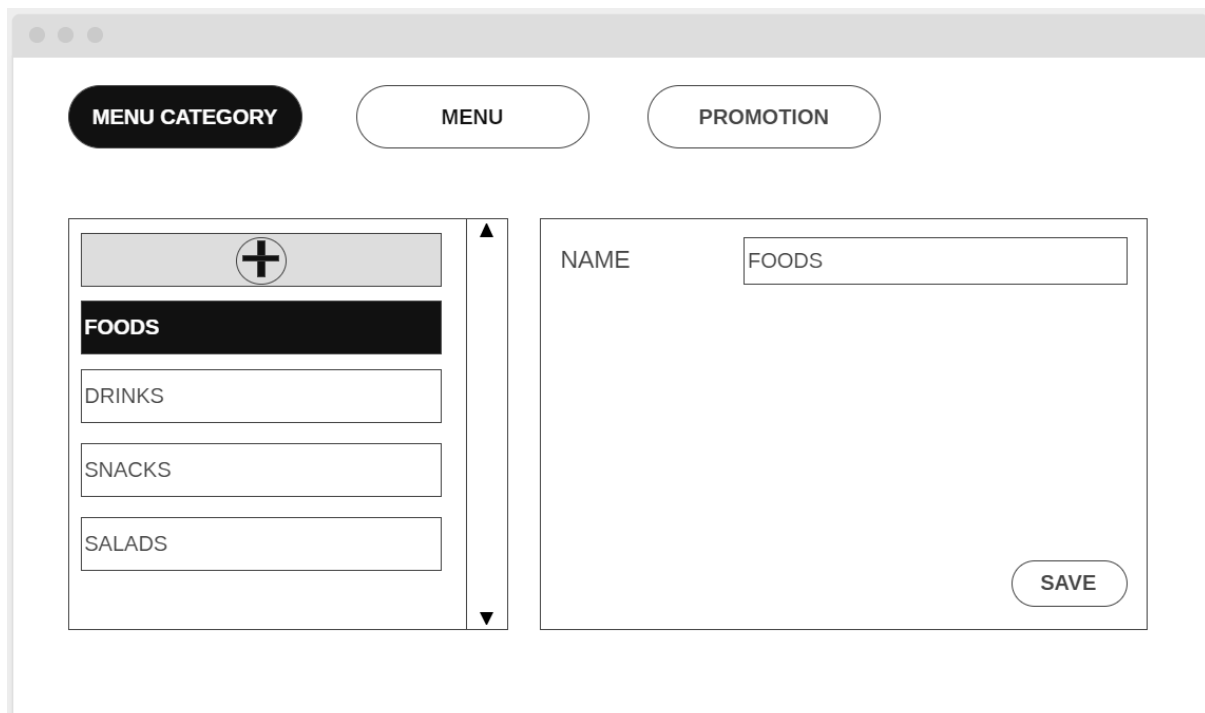| TABLE	KEY	COLUMN	REQUIRED	DATATYPE	NOTES
menu_category	PK	id	Y	INT	Auto Increment
		name	Y	VARCHAR(100)	
menu	PK	id	Y	INT	Auto Increment
	FK	menu_category_id	Y	INT	
		name	Y	VARCHAR(100)	
		price	Y	DECIMAL(8, 2)	
		description		VARCHAR(200)	
		is_favourite		BIT	
promotion	PK	id	Y	INT	Auto Increment
		code	Y	VARCHAR(20)	
		discount	Y	DECIMAL(5, 2)	
		minimum_spent	Y	DECIMAL(10, 2)	
		start_time	Y	DATETIME	
		end_time	Y	DATETIME	
header_order	PK	id	Y	INT	Auto Increment
		order_made_time	Y	DATETIME	
		table_number	Y	INT	
		customer_name	Y	VARCHAR(100)	
detail_order	PK	id	Y	INT	Auto Increment
	FK	header_order_id	Y	INT	
	FK	menu_id	Y	INT	
		order_price	Y	DECIMAL(8, 2)	
		quantity	Y	INT	
		order_placed_time	Y	DATETIME	
payment	PK	id	Y	INT	Auto Increment
	FK	header_order_id	Y	INT	
	FK	promotion_id		INT	
		payment_type	Y	VARCHAR(20)	
		amount_to_pay	Y	DECIMAL(10, 2)	
		amount_paid	Y	DECIMAL(10, 2)	

Module 1: Master Form Development

1. Database and Project Creation

Create a database inside your local Microsoft SQL Server. The database should be named **"DB_PC_XX_Module1"**, where **XX** is your PC number. Afterwards, import all the data given in the excel file.

Create a new Visual Studio Project on your local machine named **"Project_PC_XX_Module1"**, where **XX** is your PC number.

2. Menu Category Form

✓ This form will be shown when user clicks "Menu Category" Button

✓ When a category is selected, the detail will be shown in the right side. User can edit the value. When save button is clicked, validate all fields, then save the changes. Menu Category must be unique. Foods, Drinks, and Snacks category cannot be edited.

✓ New category can be added by clicking ⊕ button. User then can fill in all the field on the right side. When save button is clicked, validate all fields, then save the new category.

Figure 1. Menu Category Form

3. Menu Form

✓ This form will be shown when user clicks "Menu" Button

✓ Sort feature can be used to sort the displayed data. Available options are: Price (ascending), Price (descending), Name (ascending), and Name (descending).

✓ Displayed data can be filtered based on Menu Category.

✓ When a menu is selected, the detail will be shown in the right side. User can edit the value. When the save button is clicked, validate all fields, then save the changes.

✓ New menu can be added by clicking ⊕ button. User then can fill in all the field on the right side. When save button is clicked, validate all fields, then save the new menu.

Figure 2. Menu Form

4. Promotion Form

✓ This form will be shown when user clicks "Menu Promotion" Button

✓ Sort feature can be used to sort the displayed data. Available options are: Start Date (ascending), Start Date (descending), Discount (ascending), and Discount (descending).

✓ Displayed data can be filtered whether the promotion is active or expired.

✓ When a promotion is selected, the detail will be shown in the right side. User can edit the value. Promotion code must be unique. Discount field cannot be edited. When the save button is clicked, validate all fields, then save the changes.

✓ New promotion can be added by clicking ⊕ button. User then can fill in all the field on the right side. When save button is clicked, validate all fields, then save the new promotion.

Figure 3. Promotion Form