

**CSC099 ASSIGNMENT (INDIVIDUAL)**

**Due Date: Week09 (28 MAC 2022 – 1 APRIL 2022)**

**Objective:** To demonstrate capability in solving a real-life problem and developing a simple program.

**Theme:** Refer to the list given by your lecturer.

**Evaluation:** Refer to the rubric for the evaluation criteria.

**Instructions:**

The program should incorporate at least the following elements:

* Get user input
* Perform calculation
* Use selection control structure
* Use repetition control structure
* Display appropriate outputs and format them accordingly.
* Practice good programming conventions (standards) such as appropriate documentation, code indentation, appropriate variable naming, etc.

**Submission:**

* Follow the instruction of your lecturer on how to submit the completed program.
* You may be required by your lecturer to do a live demonstration of your program.

**Themes**

1. Library Management Application

A library is a collection of sources of information and similar resources, made accessible to a defined community for reference or borrowing. It provides physical or digital access to material and maybe a physical building or room, or a virtual space of both. You are to develop an application for managing the library’s resources and services.

1. Car Loan Application

Typically, a car is being purchased via a hire purchase loan, where you are the car’s user while the credit provider (bank) is the owner of the car. As the car user, you are required to make instalment payments according to the terms and conditions agreed upon in the hire purchase loan agreement. You own the vehicle only after all instalment payments have been made. You are assigned to develop an application for customers to apply for car loan and check their eligibility. The application also allows the bank’s staff to monitor the customers’ monthly payment.

1. Online Food Ordering Application

Due to the Covid-19 pandemic, the government has conducted movement control order (MCO) to the citizen. Most of the restaurants and shops have a new way to increase their sales during pandemic. Ahmad and his team were asked to develop BabyPanda system, this system allows user to purchase food via online system and the items will be delivered by the rider. This system requires customer’s information, allow the user to view and order the food / product from the system. Besides that, the system can keep the record purchase by the customer and give some voucher for the next purchase. This system also allow user to give feedback from the customers such as customers’ satisfaction.Finally, the customer service department can analyse the data and make a report to the top management.

1. Zakat Management System

Zakat is the third of the five basic pillars of Islamic faith. Muslims are obliged to follow this basic pillar and pay the zakat. It is mandatory charitable contribution for all Muslims who meet the necessary criteria of wealth. There two main categories of zakat, namely zakat on wealth and zakat on self (zakat fitr). Fitri and his team have been assigned by Lembaga Zakat Negeri to develop a system for zakat on wealth. This system helps the Muslim to pay their zakat via online. There are several types of zakat on wealth such as capital asset, salary, agricultural goods, precious metals, minerals, and livestock. Zakat on wealth is payable by a payer at any time of the year after 12 months (‘haul’) of his wealth reaching or exceeding the exemption limit(‘nisab’). The rate is 2.5% of the zakat wealth. This system requires user’s information, allow the user to choose type of zakat on wealth to pay. Besides that, user can enter the amount of wealth they earned on particular year where the system will calculate the amount of zakat need to be paid. The system should be able to generate reports for the management such as the amount paid for each zakat type.

1. Hospital Management System

Typically, there are two categories of patients, i.e. inpatient and outpatient. For public hospitals, service charges for these patients differ between government servants, pensioners, citizens, non-citizens in Malaysia. Data to be captured are such as patient age, patient type (in patient or outpatient), ward type, patient categories, type of treatment, ward class, room category, etc. For the outpatient, the hospital also charges for the consultation of the doctor. Other than that, the outpatient will have an extra charge if the patient comes to the hospital at midnight which is from 11pm to 7am. You are assigned to develop a system that will generate billing for customers based on the services rendered by the hospital.

1. Hotel Management Application

You assigned to develop a system to cater for hotel facilities such as room reservation, food and beverages ordering, health club and spa used, etc. The system should also generate bills to be paid by customers.