# Assignment2 -Week4 (Assessment 3 Grade )

**Problem:** A car park payment system allows customers to select the number of hours to leave their car in the car park. The customer will get a discount if they enter their frequent parking number correctly. The system calculates and displays the amount the customer must pay.

The price of parking, the number of hours the customer can enter, and any discount depend upon the day of the week and the arrival time. The number of hours entered is a whole number. The price per hour is calculated using the price in force at the arrival time. No parking is allowed between Midnight and 08:00.

| Day of the week | Arrival time | | | |
|---|---|---|---|---|
| | From 08:00 to 15:59 | | From 16:00 to Midnight | |
| | Max stay in hours | Price per hour | Hours | Price |
| Sunday | 8 | 2.00 | Up to Midnight | 2.00 |
| Monday | 2 | 10.00 | Up to Midnight | 2.00 |
| Tuesday | 2 | 10.00 | Up to Midnight | 2.00 |
| Wednesday | 2 | 10.00 | Up to Midnight | 2.00 |
| Thursday | 2 | 10.00 | Up to Midnight | 2.00 |
| Friday | 2 | 10.00 | Up to Midnight | 2.00 |
| Saturday | 4 | 3.00 | Up to Midnight | 2.00 |

A frequent parking number can be entered for discounted parking. This frequent parking number is considered to be valid if it is an even number and is divisible by 3. Upon successful validation of the number, a discount of 50% is available for arrival times from 16:00 to Midnight; the discount is 10% at all other arrival times.

Write a pseudocode to simulate the car park payment system and calculate the price to park.

Your program or programs must include appropriate prompts for the entry of data; data must be validated on entry.

Error messages and other output need to be set out clearly and understandably.

All variables, constants and other identifiers must have meaningful names.