**Department of Statistics & Computer Science, University of Kelaniya ACADEMIC YEAR – 2022/2023**
**BECS 11223 – Fundamentals of Programming**
**Lab Session 01**

Throughout this lab session, you will learn to draw flow charts using an online tool.

First, create a new word document including your student number and lab session number as the header and page number as footer. Save this Word document on the computer using your student number as the file name.

Draw flowcharts for the following problems using the https://app.diagrams.net/ website and upload your completed flowchart into the EKEL relevant folder.

1. Login into your facebook account.

   - Download the flowchart in PNG or JPEG format.
   - Add the downloaded image into the word document with the relevant question number.

2. Find the largest integer of two given integers.

   - Download the flowchart in PNG or JPEG format.
   - Add the downloaded image into the word document with the relevant question number.

3. Calculate the Interest of a bank Fixed Deposit (FD).

   Pseudocode:
   Read amount
   Read years
   Read rate
   Calculate the interest with formula "Interest=Amount*Years*Rate/100
   Print interest

   - Download the flowchart in PNG or JPEG format.
   - Add the downloaded image into the word document with the relevant question number.

4. Determine and output whether an input integer (N) is Even or Odd.

   Pseudocode:
   Read number N
   Divide the number by 2 and get the remainder value
   If remainder is equal to 0 then number N is even, else number N is odd
   Print output.

   - Download the flowchart in PNG or JPEG format.
   - Add the downloaded image into the word document with the relevant question number.

5. Determine whether a student passed the Exam or Not:

   Pseudocode:
   Input grades of 4 courses M1, M2, M3 and M4
   Calculate the average grade with formula "Grade=(M1+M2+M3+M4)/4"
   If the average grade is less than 60, print "FAIL", else print "PASS".

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6. Print Hello World 10 times.

   Pseudocode:
   Initialize count = 0
   Print Hello World
   Increment count by 1
   Is count < 10 go to step 2 else Stop

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7. Calculate the commission rate for a salesperson, given the amount of sales. When the salesperson has sold less than or equal to 20,000 worth of goods, the commission is 2%. When the sales total more the 20,000 and less than or equal to 40,000 the commission is 4%. When sales total is more than 40,000 and less than or equal to 60,000, the commission is 7%. When the person has sold more than 60,000 the commission is 10%.

| Sales | Commission |
|---|---|
| <= 20,000 | 0.02 |
| 20,001 - 40,000 | 0.04 |
| 40,001 - 60,000 | 0.07 |
| > 60,000 | 0.10 |

   - Download the flowchart in PNG or JPEG format.
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**Submission:**

Submit your word document to the ekel “Lab Session 01” submission box