



**United International University**

*QUEST FOR EXCELLENCE*

## **Assignment on Flowchart**

<b>1.</b>	You are developing a simple program for a device that checks if two numbers entered by a user are equal. Create a flowchart to represent this process.
<b>2.</b>	Imagine you need to create a program that determines whether a given number is positive or negative. Draw a flowchart for this.
<b>3.</b>	Create a flowchart for a program that calculates the perimeter of a rectangle based on user-provided length and width.
<b>4.</b>	You need to find the smallest of three numbers provided by the user. Draw a flowchart to represent this process.
<b>5.</b>	Draw a flowchart for a program that asks the user for their age and then prints whether they are eligible to vote (age 18 or older).
<b>6.</b>	Design a flowchart for a smart home system. The system should check if the current time is after 10 PM. If it is, it should turn off the lights and print "Good night!"; otherwise, print "Lights remain on".
<b>7.</b>	You need to create a flowchart for a program that checks if an email address entered by a user contains the "@" symbol. If it does, print "Valid email"; otherwise, print "Invalid email".
<b>8.</b>	You are designing a program for a library. The program should check if a borrowed book is overdue. If the book is overdue, it should print a message "Book is overdue", otherwise print "Book is not overdue". Create a flowchart for this process.
<b>9.</b>	You are tasked with creating a flowchart for a login system. The system should check if the entered username and password match the stored username and password. If they match, print "Login successful"; otherwise, print "Invalid credentials".
<b>10.</b>	Design a flowchart for a program that asks a user to enter their favourite color. If the color is "blue", print "Cool choice!"; if the color is "red", print "Fiery choice!"; for any other color, print "Interesting choice!".

11.	You are tasked with creating a flowchart for a login system. The system should check if the entered username and password match the stored username and password. If they match, print "Login successful"; otherwise, print "Invalid credentials".
12.	<p>You need to design a flowchart for a program that reads the temperature in centigrade from the user and displays a suitable message according to the following temperature states:</p> <ul style="list-style-type: none"> <li>➡ Temp &lt; 0: Print "Freezing"</li> <li>➡ <math>0 \leq \text{Temp} &lt; 10</math>: Print "Very Cold"</li> <li>➡ <math>10 \leq \text{Temp} &lt; 20</math>: Print "Cold"</li> <li>➡ <math>20 \leq \text{Temp} &lt; 30</math>: Print "Normal"</li> <li>➡ <math>30 \leq \text{Temp} &lt; 40</math>: Print "Hot"</li> <li>➡ <math>\text{Temp} \geq 40</math>: Print "Very Hot"</li> </ul>
13.	Create a flowchart for a calculator program with 4 options (+, -, *, /). The user will input 2 numbers and a character for the operation. The program should operate and show the result.
14.	You are tasked with designing a flowchart for a ride-booking and feedback system similar to Uber. The system should allow users to book a ride, track the ride's progress, reach their destination, and provide feedback on the ride experience.
15.	You are designing a flowchart for a system that helps users apply for scholarships at various universities. The process involves logging into the system, searching for universities based on specific criteria, and applying for a scholarship at a selected university. The system uses a filter search, which allows users to narrow down search results based on criteria such as country name, university ranking, and program type.