

# Experiment - 1.1.5. Student Pass or Fail Status

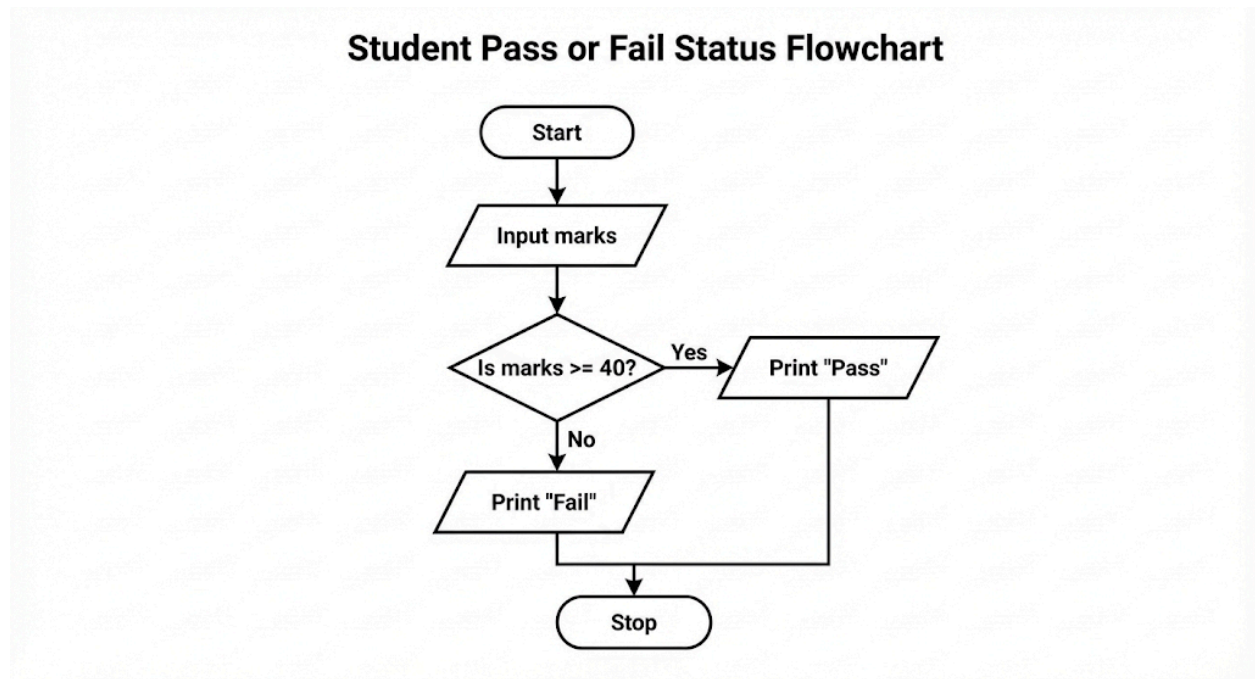
## 1. Aim

To design and implement a Python program that determines a student's examination status based on their marks. The program evaluates whether the student has passed or failed using a threshold of 40 marks (Pass:  $marks \geq 40$ , Fail:  $marks < 40$ ).

## 2. Pseudocode

1. **START**
2. **READ** the input value from the user and convert it to an integer.
3. **STORE** the value in the variable marks.
4. **IF** marks is greater than or equal to 40:
  - **PRINT** "Pass"
5. **ELSE:**
  - **PRINT** "Fail"
6. **END**

## 3. Flowchart



## 4. Python Program

```
# Program to determine student pass/fail status
# Input: marks as an integer
```

```
# Output: "Pass" or "Fail" based on criteria
```

```
# Taking marks as input
```

```
marks = int(input())
```

```
# Conditional check for passing criteria
```

```
if marks >= 40:
```

```
    print("Pass")
```

```
else:
```

```
    print("Fail")
```

## 5. Experiment Screenshot

The screenshot displays the CodeTANTRA IDE interface. On the left, a sidebar shows the problem statement: "1.1.5. Student Pass or Fail Status". The problem asks to write a Python program to determine if a student passed or failed based on their marks. It specifies the pass/fail criteria: a student passes if marks are  $\geq 40$  and fails if marks are  $< 40$ . It also defines the input and output formats. The main area shows the Python code for this logic. The code is as follows:

```
1 marks = int(input())
2
3 if marks >= 40:
4     print("Pass")
5 else:
6     print("Fail")
7
8
```

Below the code editor, the test results are shown. The average time is 0.003 s and the maximum time is 0.004 s. The results indicate that 3 out of 3 shown test cases passed and 4 out of 4 hidden test cases passed. A detailed view of Test case 1 shows the expected output "Pass" and the actual output "Pass", both for an input of 45.

At the bottom of the IDE, there are buttons for "Terminal", "Test cases", "Prev", "Reset", "Submit", and "Next".