

## **Lab 2: Variables and Control Flow in Python**

### **Learning Objectives:**

By the end of this lab, students will be able to:

- Define and manipulate variables
- Apply arithmetic and comparison operators
- Use conditional statements (if, else, elif) to control program flow.

### **Tips:**

- Use meaningful variable names.
  - Follow Python naming rules.
  - Use comments to explain your code.
  - Test your code with different inputs.
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### **Exercises:**

#### **Exercise 1: Variable Basics**

Write a Python program that:

1. Defines a variable name with your name.
  2. Defines a variable age with your age.
  3. Prints a sentence like:  
"Hello, my name is Arwa and I am 21 years old."
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#### **Exercise 2: Weekly Pay Calculator**

Create a program that calculates weekly pay:

```
#Python  
  
hours = 40  
  
rate = 15.5  
  
pay = hours * rate  
  
print("Weekly pay is:", pay)
```

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Try changing the values of hours and rate to see different results.

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### **Exercise 3: Age Comparison**

Write a program that compares two ages:

Python

```
age1 = 25
```

```
age2 = 30
```

- Print which age is greater.
  - Check if the ages are equal.
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### **Exercise 4: Day Checker**

Write a program that asks the user to enter a day (sun, mon, ..., thu) and:

- If the day is thu, fri, or sat, print: "Have a nice weekend!"
  - Otherwise, print: "Have a productive day!"
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### **Exercise 5: Grade Evaluator**

Write a program that asks the user to enter a score (0–100), then prints the corresponding grade:

- A if  $\text{score} \geq 90$
- B if  $\text{score} \geq 80$
- C if  $\text{score} \geq 70$
- D if  $\text{score} \geq 60$
- F if  $\text{score} < 60$

Use if, elif, and else statements.

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