

## 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)
```

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 score  $\geq 90$
- B if score  $\geq 80$
- C if score  $\geq 70$
- D if score  $\geq 60$
- F if score  $< 60$

Use if, elif, and else statements.

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