

Assignment One

Course: Application Programming (C#)

Research Assignment: What is a Variable in C#?

1. What is a Variable?

A variable is a named memory location used to store data in a program. In C#, every variable has a data type and its value can change while the program runs.

Example:

```
int age = 20;  
string name = "Samira";
```

2. What is a variable in programming?

A variable is a container that holds information such as numbers, text, or true/false values. Programmers use variables to keep and use data during execution.

3. Why are variables necessary in a program?

- Store data temporarily.
- Make programs flexible and reusable.
- Allow user input to be saved.
- Help perform calculations and make decisions.

4. How do variables store and manipulate data?

Variables store values in the computer's memory. A program can read, change, and use those values in calculations or other operations.

Example:

```
int x = 10;  
x = x + 5;  
Console.WriteLine(x); // Output: 15
```