Unit III:
Introduction to iOS – Swift Programming

CTE308- AS2025

College of Science and Technology

Royal University of Bhutan

Tutor: Pema Galey

#17682761

Outlines

- Variables and Constants
- Data Types
- Operators
- If and Switch
- Loop
- Function
- Class

Swift Variables

1. Variable Declaration
   - *var name = "Pema"*
   - *var age = 25*
   - *age = 26*

2. Printing Value
   - *print(name)*

3. Constant Value : Cannot change the value
   - *let lastName = "Wangchuk"*
   - *lastName = "Dorji"*

Data Types

- Data types in Swift:
  1. String
     - *var name: String = "Pema"* *//explicit declaration of data type*
  2. Int
     - *var age: Int = 25*
  3. Float and Double
     - *var height: Float = 5.6*
     - *var weight: Double = 60.5*
  4. Boolean
     - *var result: Bool = true*

If Statement

- If Statement in Swift:
  - Syntax:

    ```
    if condition {
            // some code
    }
    ```

  - Example:

    ```
    let a = 5
    if a < 10 {
        print("a is less than 10")
    }
    ```

Switch Statement

- Switch Statement in Swift:
  - Syntax:

    ```
    switch value-to-consider {
            case value1: //some code
            case value2: //some code
            default: //some code
    }
    ```

Looping

- For Loop :
  - Syntax:

    ```
    for counter in lower...upper {
            // some code
    }
    ```

  - Example:

    ```
    for num in 1...5{
            print(num)
    }
    ```

Looping

- While Loop :
    - Syntax:
        ```
        while condition {
                // some code
        }
        ```

    - Example:
        ```
        var num = 5
        while num > 0 {
                print("hello")
                num-=1
        }
        ```

Function

- Function in Swift:
  - Syntax:

```
func name() {
        // some code
}
```

  - Example:

```
func addTwoNumbers() {
        let a = 1
        let b = 2
        let c = a + b
        print(c)                                    //Calling Function
}                                                    addTwoNumbers()
```

Function

- Function with Return Value in Swift:
    - Syntax:
        ```
        func name() -> DataType{
                // some code
                return someValue
        }
        ```

    - Example:
        ```
        func addTwoNumbers() -> Int{
                let a = 1
                let b = 2
                let c = a + b
                return c
        }
        ```

        ```
        //Calling Function
        let sum =addTwoNumbers()
        print(sum)
        ```

Class

- Class in Swift:
  - Syntax:

    class name {

    // class properties

    }

  - Example:

    class Employee {

    var name = ""

    var salary = 0

    var role = ""

    }

//Creating Class Object
var c = Employee()
c.salary = 1000 print(c.salary)

Classes and Methods

- A Swift function defined inside a class is called method. For example,

```swift
class Person {
    . . .
    // define methods
    func greet() {
        // method body
    }
}
```

- Here, greet() is a method defined inside the Person class.

Class and Methods

```
class Person {
        // define a method
        func greet() {
                print("Good Morning!")
        }
}


var p = Person()
 // call method
p.greet()
```

- *Output:*

Good Morning!

Resources

- Basic Building iOS App from Apple official site:
  https://developer.apple.com/tutorials/app-dev-training/

- Swift Programing Online Compiler:
  https://www.programiz.com/swift/online-compiler/

Thank you!