

Module 4
Swift Development

Topics:

Subscripts in Swift

Problem 1:

Copy and paste the following code to a swift playground. The code has some errors. You need to fix the errors to make the program produces the results as states in the comments

```
class EductionPortal{

    //student numbers -> list of grades
    var marks:[String:[Int]]=["781214":[72,63,70], "341234":[80,46]]

    //student Ids -> numbers
    var ids:[Int:String]=[1:"781214", 2:"341234", 3:"568912"]

    //student numbers -> names
    var names:[String:String]=["781214":"Ali", "341234":"Peter",
"568912":"Sam"]

    //complete the code using subscripts (only use subscripts as much as
    possible)
}

var ep = EductionPortal()
//it should calculate the average of the first 3 grades of the student
whose ID is 1
let st1Avg = ep[1, 3]

//It should give the name of the student whose number is 781214
let studentName = ep["781214"]

//it should give the name of student whose ID is 2
let studentNumber = ep[2]
```

Problem 2:

Use an extension to add the following functionality to the class you defined in Problem1.

```
let _ = ep[4, "881299", [65, 22, 78]]
```

The above code will add a student with student ID 4 and student number 881299 and grades [65, 22, 78] to the corresponding properties in the class.

Problem 3:

Consider the following class. Complete the class definition such that fibo[n] generates the Fibonacci of number n. For instance fibo[5] generates the Fibonacci number for number 5.

```
class Fibonacci{  
    //complete the code here  
}  
  
let fibo = Fibonacci ()  
print(fibo[5])  
  
//type subscript  
let fibo1 = Fibonacci[5]
```

Problem 4:

Consider the class MyStudent below. Make changes to resolve the issues and make the code generate the result as stated.

```
class MyStudent{  
    var firstName: String?  
    var lastname: String?  
    var id: Int = 1  
    var address: String?  
  
    //Complete code here  
}  
  
let st = MyStudent("Sara", "Jones", 5, "Vancouver")
```



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```
print(st[0]) //prints the first name of st
print(st[1]) //prints the last name of st
print(st[2]) //prints the id of st
print(st[3]) //print the address of st

st[0] = "Sarah" //change the first name to Sarah
st[1] = "Peter" //change the last name to Peter

//st[2] is readOnly and cannot change once assigned

st[3] = "Surrey" //change the address to Surrey
```