

# RIPHAH INTERNATIONAL UNIVERSITY, LAHORE CAMPUS.

SCHOOL OF COMPUTING & INNOVATION



## OBJECT ORIENTED PROGRAMMING LAB 04

Date: 19-04-2022  
Semester: SPRING 2022  
Submission: In Lab  
CLASS: BSCS – 2B

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### Objectives:

- Continue with classes.
  - Implementation of parameterized constructor.
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### Task 1:

Implement a class 'Student' that we already discussed in classes & labs.

The characteristics of class is given below:

#### Data Members:

- name : string *(Stores the student's name)*
- sap : int *(Stores the student's SAP Id)*
- phone : string *(Stores the student's phone number)*
- dob : string *(Stores the student's date of birth)*

#### Functions:

- Default Constructor
  - *Set all values according to your data i.e. name, sap, phone, date of birth.*
  - *Print a message "Default Constructor"*
- Parameterized Constructor (string, int, string, string)
  - *Set all values according to the given parameters*
  - *Print a message "Parameterized Constructor # 1"*
- Parameterized Constructor (string, string, string, int)
  - *Set all values according to the given parameters*
  - *Print a message "Parameterized Constructor # 2"*

Instructor: Noor Ullah Khan

- **Destructor**
  - *Print a message "Default Constructor"*
- **void print()**
  - *Prints all data members i.e. name, sap, phone, date of birth*

Write a main function that does following and answer the following questions:

1. Create a pointer-based object 's1' with default constructor. Run code and write output below.

**Write Output Here:**

2. Create a pointer-based object 's2' with these values. Run code and write output below.

Name = Akhtar Saleem

SAP = 5639

Phone = 0300-1234567

DOB = 15/05/1995

**Write Output Here:**

3. Call print function with object 's1' and write output below:

**Write Output Here:**

4. Call print function with object 's2' and write output below:

**Write Output Here:**

**// Comment print() function before going ahead.**

5. Write a code to run the destructor in .cpp file for both objects created 's1' and 's2'. Run the code and write output here.

**Write Output Here:**

**// Comment all previous code in main() function before going ahead.**

6. Create a non-pointer-based object 's3' with default constructor. Run code and write output below.

**Write Output Here:**

7. Create a non-pointer-based object 's4' with these values. Run code and write output below.

Name = Sultan Mahmood

SAP = 2294

Phone = 0312-7654321

DOB = 07/09/1994

**Write Output Here:**

8. Explain the behavior of destructors that how destructors are calling?

**Write Output Here:**