Heaven's Light is Our Guide

Rajshahi University of Engineering & Technology

Department of Computer Science & Engineering

Lab Manual

Course Code: **CSE 1204 (Sec B)**

Course Title: Sessional based on CSE 1203

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Module 07 [UML+Java Basics]
(for Week 8: 19-23/7/2025)

Topic 1 [UML]
Problem statement: Draw the UML diagram for the following class

```
class Test{
   private: int x;
   protected: int y;
   public: int z;
   public:
     void SetData(int a,int b,int c){
       x=a;y=b;z=c;
   }
   float getAverage(){
    Return (x+y+z)/3.0;
   }
```

Topic 2 [UML: Aggregation]
Problem statement: Create two classes Doctor and Patient to store the information of doctors and patients respectively. Now write codes to create association between these two classes by aggregation.
[note: if Patient class is destroyed then Doctor class is still exist]

class Doctor{	class Patient{	int main(){
//write your code	//write your code	//write your code
}	}	}

Topic 3 [UML: Composition]
Problem statement: Create two classes Doctor and Patient to store the information of doctors and patients respectively. Now write codes to create association between these two classes by composition.
[note: if Doctor class is destroyed then Patient class is also destroyed]

class Doctor{	class Patient{	int main(){
//write your code	//write your code	//write your code
}	}	}

Topic 4: [java Programming Basics]
Problem Statement: Write java programs to do the following
   i)   Display your name and address in two lines
   ii)   Take two integers as inputs and prints the bigger one
   iii)   Input a series of 10 numbers into an array ax[] and finds the largest, smallest and average of these numbers. Also write code for searching and sorting.

Topic 5 [**java Programming private method**]
Problem Statement: Verify that private methods can be used only inside the class but it cannot be used from outside the class.

Topic 6 [**java Programming static method/member**]
Problem Statement: Verify that static methods can access static method/member but cannot access to non-static method/member.