Heaven's Light is Our Guide
Rajshahi University of Engineering & Technology
Department of Computer Science & Engineering

Lab Manual

Course Code: **CSE 1204 (Sec A)**
Course Title: Sessional based on CSE 1203
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Module 8 [Advanced Topics: Java Programming]: (for Week 12)

Topic 1: **Anonymous Object**   * page 176
Problem Statement: Write a method getMyArray() that returns an anonymous array object. The method must be called by main().

```java
public class Test{
     public static void main(String[] args) {
     //write statement
     }
     //write getMyArray()
}
```

Topic 2: **Inner class**   * page 184
Problem Statement: Write an outer class A and an inner class B. Now initialize the private data members of A and B through the object of class B object. Also write the Display() method to display the sum (ax+bx).

```java
class A{
    private int ax;
    public A(int x){
        ax=x;
    }
    class B{
     private int bx;
     public B(int x){
        bx=x;
    }
     public void Display(){
       //write statements to display ax+bx
    }
    }
}
public class Test{
     public static void main(String[] args) {
       //write statement to create class B object
       //call Display()
     }
 }
```

remember this

Topic 3[**inheritance: use of super keyword**]   * 188 page
Problem Statement: For the following Java program write
     i)   to display x of class A in class B
     ii)   statement to call getX() of class A in class B
     iii)   to call parameterized constructor of in class B

``java
class A{
   int x;
   public A(){```	

```
    x=0;
  }
  public A(int x){
    this.x=x;
  }

  public int getX(){
    return(x+10);
  }

class B extends A{
  int x=20;
  public int getX(){
    return(x+10);
  }
}
public class First{
    public static void main(String[] args) {

  }
}
```

Topic 4[**abstract class in Java**]   *page 191

Problem Statement: Write an abstract class **Test1** in Java and write an abstract method **Display()** and a non-abstract method **Show()**. Implement the **Display()** method in a class named **Test2**. Finally call **Display()** and **Show()** from main().

Topic 5[**interface in Java**]

Problem Statement: Write three interfaces in Java namely AI,BI and CI with the following activities:
    i)   Declare method PrintA() in AI
    ii)   Declare method PrintB() in BI
    iii)   Declare method PrintC() in CI
    iv)   write body of PrintA() in class A
    v)   write body of PrintB() in class B which is inherited from class A
    vi)   write body of PrintC() in class C which is inherited from class B
    vii)   Create object of class C in main() of First class and invoke PrintA(), PrintB() and PrintC()

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