Std. 12 Java Programs
Chapter 7 : Java Basics

1. Program welcome to java program

```
class abc
{
    public static void main(String[] args)
    {
            System.out.println("Welcome to JAVA");
            System.out.println("My first program");
    }
}
```

2. Program Showing call cost.

```
class callcost
{
public static void main(String[]  args)
{
double balance;
double rate;
double duration;
double cost;
balance = 170;
rate = 1.02;
duration = 37;
cost = duration*rate;
balance = balance-cost;
System.out.print("call duration:");
System.out.print(duration);
System.out.println("seconds");
System.out.println("balance:"+balance+"rupees");
}
}
```

3. Program for interest

```
public class interest
{
public static void main(String[] args)
{
```

```
double principal;
double rate;
double duration;
double maturity;
double interest;
principal=17000;
rate=9.50;
duration=3;
interest=principal*duration*rate/100;
maturity=principal + interest;
System.out.println("Principal amount:" + principal + "rupees");
System.out.println("Deposit for duration of" + duration + "years");
System.out.println("Interest rate:" + rate + "%");
System.out.println("Interest amount:" + interest + "Rupees");
System.out.println("Maturity amount:" + maturity + "Rupees");
}     }
```

4. **Program showing use of Arithmetic Operator**

```
class arithoper
{
public static void main(String[] args)
{
short x=6;
int y=4;
float a=12.5f;
float b=7.2f;
System.out.println("value of x is : "+x+ "value of  y is : "+y);
System.out.println("x+y = "+(x+y));
System.out.println("x-y = "+(x-y));
System.out.println("x/y = "+(x/y));
System.out.println("x%y = "+(x%y));
x= -6;
System.out.println("x%y = "+(x%y));
y= -4;
System.out.println("x%y = "+(x%y));
x= 6;
y= -4;
System.out.println("x%y = "+(x%y));
System.out.println("value of  a is  : "+a+" value of b is : "+b);
System.out.println("a+b = "+(a+b));
System.out.println("a-b = "+(a-b));
System.out.println("a/b = "+(a/b));
System.out.println("a%b = "+(a%b));
}  }
```

5. **Program showing simple test variable**

```
class testvar
{
 public static void main(String[] args)
 {
 float rate=5;
 double amt=10000;
```

```
amt=rate*amt;
System.out.println("rate"+rate);
System.out.println("amt"+amt);
}
}
```

6. **Program showing use of Block**

```
class block
{
public static void main (String[] args)
{
blk1:
{
int y=50,x=2;
System.out.println("inside the block1:");
System.out.println("x:"+x);
System.out.println("y:"+y);
}
blk2:
{
int y=20;
int x=30;
System.out.println("inside the block2:");
System.out.println("x:"+x);
System.out.println("y:"+y);
} }
}
```

7. **Program for marks check grade**

```
class marks
{
public static void main(String[] args)
{
int x=55;
if(x >= 70)
{
System.out.print(x);
System.out.println("Grade A ");
}
else
{
if(x >= 60)
{
System.out.print(x);
System.out.println("Grade B ");
}
else if(x >= 50)
System.out.println("Grade C "+x);
else
System.out.println("Fail" +x);
}
}
```

```
    }
```

8. **Program for loop**

```
class forloop
{
public static void main(String[] args)
{
 for(int i=0;i<=10;i++)
 {
  System.out.println("number is : " +i);
 }
}
 }
```

9. **Program While loop**

```
class whileloop
{
public static void main(String[] args)
{
 int i=0;
  while(i<=10)
  {
   System.out.println("number is : " +i);
   i++;
  }
}
}
```

10. **Program for Do ...While loop**

```
class dowloop
{
public static void main(String[] args)
{
 int i=0;
 do
 {
  System.out.println("number is : " + i++);
 }while (i<=10);
   }
    }
```

11. **Program for switch case**

```
class scase
{
public static void main(String[] args)
{
 int i=2;
 switch(i)
 {
  case 1:
     System.out.println("You are in Case 1");
     break;
```

```
case 2:
  System.out.println("You are in Case 2");
  break;
case 3:
  System.out.println("You are in Case 3");
  break;
case 4:
  System.out.println("You are in Case 4");
  break;
default:
  System.out.println("Enter values between 1 to 4");
  break;
 }
   }  }
```

12. Program for Even odd number

```
class even
{
public static void main(String[] args)
{
int x=12;
if(x%2 == 0)
{
System.out.print(x);
System.out.println("is even ");
}
else
{
 System.out.print(x);
 System.out.println("is odd ");
}
}
}
```

13. Program for loop block

```
class lblb
{
public static void main( String[] args)
{
 int x=0;
 out : for (int i=4;i<10;i++)
 {
   x=10;
   while(x<100)
   {
     System.out.println("inside while loop : i is " +i+ ",x is,"+x);
     if (i*x==350)
     break out;
     x=x+20;
    }
     System.out.println("outside while loop : i is "+i+",x is"+x+ "\n");
  }
```

```
    System.out.println("Out side for loop X is" +x);
  }       }
```

14. **Program for simple interest**

```
class install
{
public static void main(String[] args)
{
  double p, q ;
  double rate=12;
  double interest=0,m_inst=0;
  int month=36;
  for(p=10000;p<=100000;p=p+10000)
 {
  interest=(p* rate * month) / 1200;
  q=p + interest;
  m_inst=q/36;
  System.out.println(" \n Principle Amount:" + p + "and its Monthly
 installment for 36 month is" +m_inst);
  }
}
}
```

15. **Program for grade**

```
class sgrade
{
public static void main(String[] args)
{
 int choice=0;
 int marks=300;
 if(marks>499)
    choice=1;
 else if(marks>400)
    choice=2;
 else if(marks>300)
    choice=3;
  switch(choice)
  {
   case 1:
     System.out.println("Your Grade is A : " +marks);
     break;
   case 2:
     System.out.println("Your Grade is  B : "+marks);
     break;
   case 3:
     System.out.println("Your Grade is C : "+marks);
     break;
   default:
     System.out.println("Fail  : "+marks);
     break;
  }
 }
```

}

16. **Program for creating and using class and objects**

```
class room
{
float length, width, height;
void setAttr(float l, float w, float h)
 {
  length =l;
  width =w;
  height=h;
  }
          double area()
  {
   return (length * width);
  }
        void display()
  {
   System.out.println("\n  Length : " +length);
   System.out.println("\n  Width : " +width);
   System.out.println("\n  height : " +height);
  } }
class roomdemo1
{
 public static void main(String[] args)
 {
  room r1= new room();
  r1.display();
  r1.setAttr(18,12.5f,10);
  r1.display();
  System.out.println("\n Area of room with length " +r1.length+ "width "
  +r1.width+ "is : " +
  r1.area());
  }
 }
```

17. **Program for Method Overloading**

```
 class printline
{
static void println(int n)
{
  for (int i=0;i<n ; i++)
  System.out.print('#');
  System.out.println();
}
static void println(char ch, int n)
{
 for (int i=0;i<n;i++)
 System.out.print(ch);
 System.out.println();
}
```

```
    }
class polyd
{
 public static void main(String[]  args)
 {
      printline.println(30);
      printline.println('+', 20);
 }
}
```