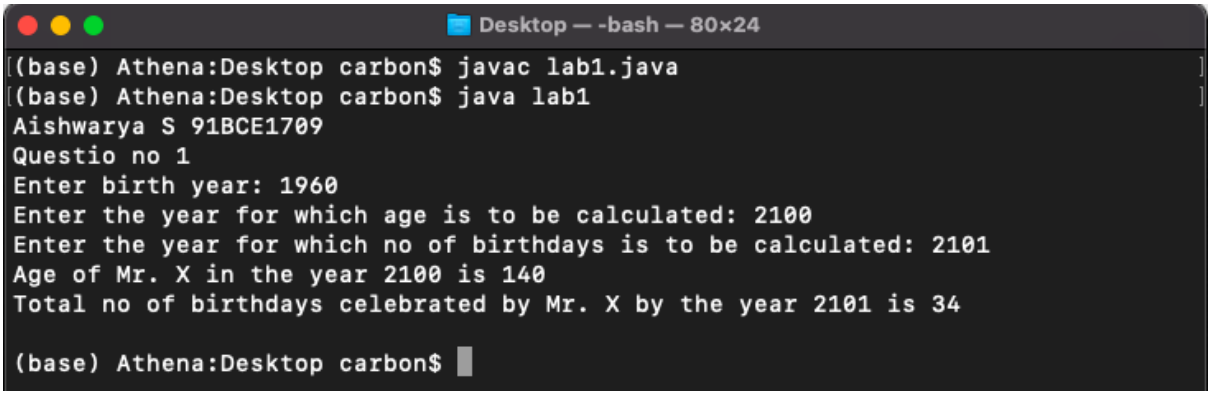
Java Programming(CSE1007)
Lab Exercise 1
-Aishwarya S 19BCE1709

1. AGE OF Mr. X.

CODE:

```
import java.util.*;

class lab1

{

public static void main(String[] args)

{

Scanner s= new Scanner(System.in);    //System.in is a standard input stream

System.out.print("Aishwarya S 91BCE1709\nQuestio no 1\n");

System.out.print("Enter birth year: ");

int a= s.nextInt();

System.out.print("Enter the year for which age is to be calculated: ");

int cu=s.nextInt();

int age=cu-a;

System.out.print("Enter the year for which no of birthdays is to be calculated: ");

int cur=s.nextInt();

int z=(cur-a)/4-(cur-a)/100+ (cur-a)/400;

System.out.println("Age of Mr. X in the year " +cu + " is " + age+"\nTotal no of birthdays celebrated by Mr. X by the year " +cur + " is " +z+"\n");

}

}
```

RESULT:



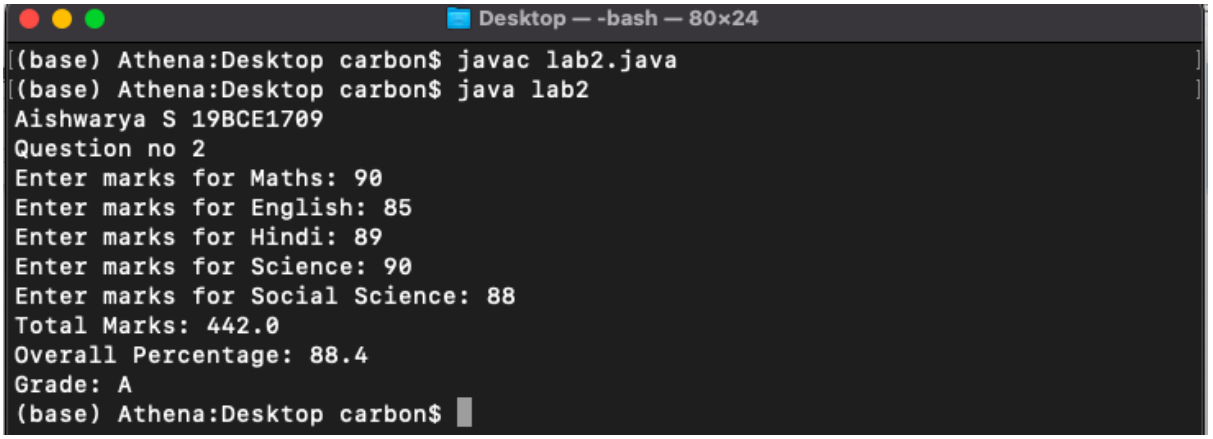
2. SACHIN'S GRADES

CODE:

```
import java.util.*;

class lab2

{

public static void main(String[] args)

{  double avg=0;

   System.out.print("Aishwarya S 19BCE1709\nQuestion no 2\n");

       String[] subs={"Maths","English","Hindi","Science","Social Science"};

   Scanner s= new Scanner(System.in);

   for(int i=0;i<5;i++)

   {    System.out.print("Enter marks for "+subs[i]+": ");

         int a= s.nextInt();

         if(a>100 && a<0)

           { System.out.print("Invalid mark"+"\n");

            i=i-1;

           }

          else

           {
```

```
            avg=avg+a;
           }
    }
    System.out.print("Total Marks: "+avg+"\n");
    avg=avg/5;
    System.out.print("Overall Percentage: "+avg+"\n");
    if(avg>=90)
     { System.out.print("Grade: S");  }
     else if(avg<=89 && avg>=80)
       System.out.print("Grade: A");
     else if(avg<=79 && avg>=70)
     System.out.print("Grade: B");
     else if(avg<=69 && avg>=60)
     System.out.print("Grade: C");
     else if(avg<=59 && avg>=50)
     System.out.print("Grade: D");
     else
     System.out.print("Fail");
     System.out.print("\n");
}
}
```

RESULT:



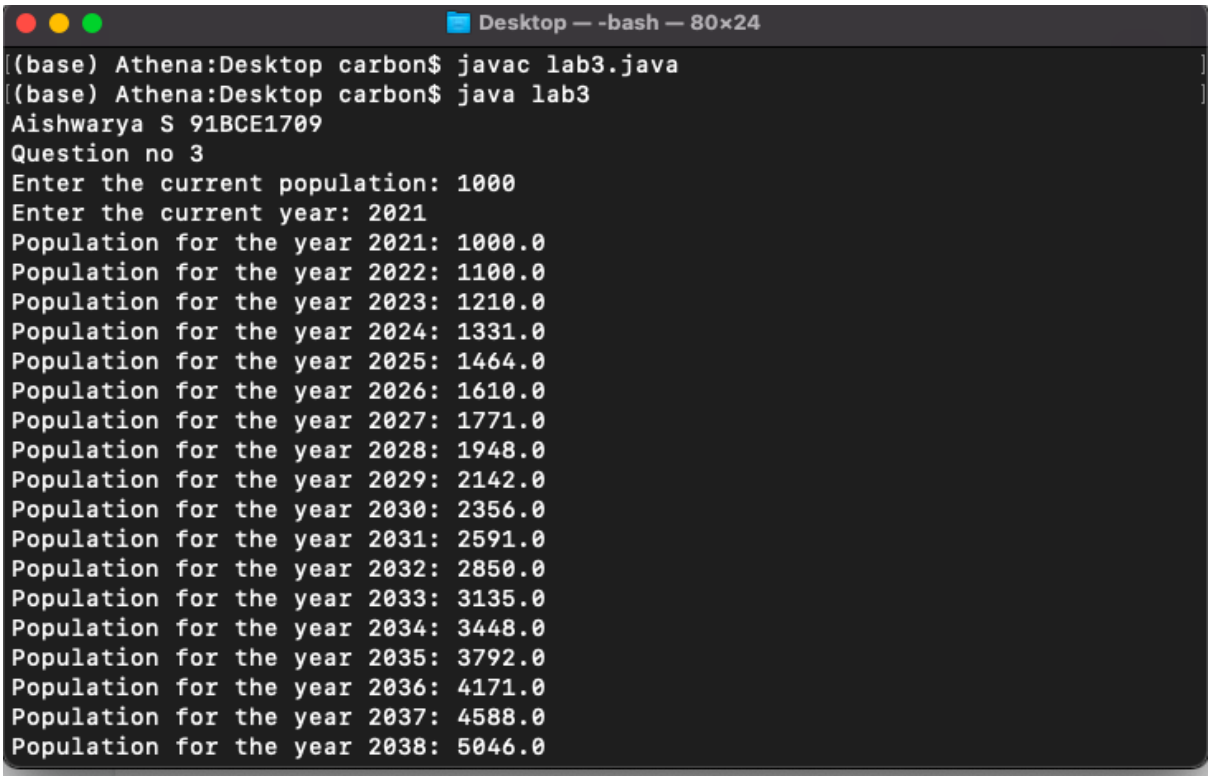
3. TOWN POPULATION

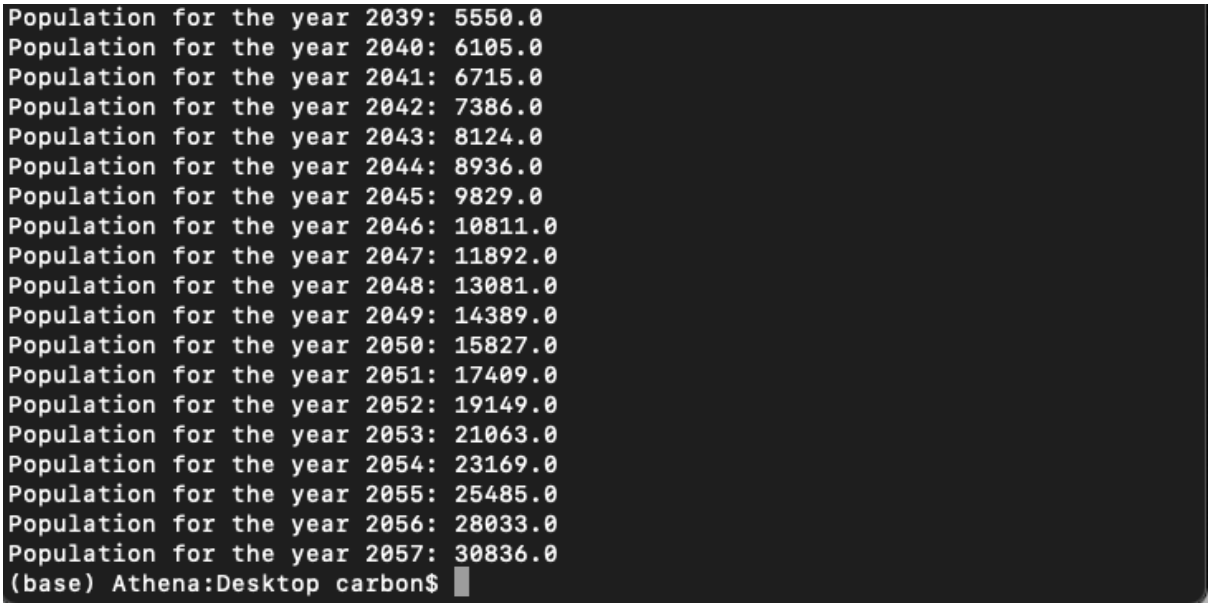
CODE:

```
import java.util.*;

import java.lang.*;

class lab3

{

public static void main(String[] args)

{

Scanner s= new Scanner(System.in);

System.out.print("Aishwarya S 91BCE1709\nQuestion no 3\n");

System.out.print("Enter the current population: ");

double a= s.nextDouble();

System.out.print("Enter the current year: ");

int y= s.nextInt();

while(a<=30000)

{ System.out.print("Population for the year "+ y+": " +a+"\n");

a=Math.floor(a+a*0.1d);

y=y+1;

}
```

```
System.out.print("Population for the year "+ y+": " +a+"\n");


}

}
```

RESULT:



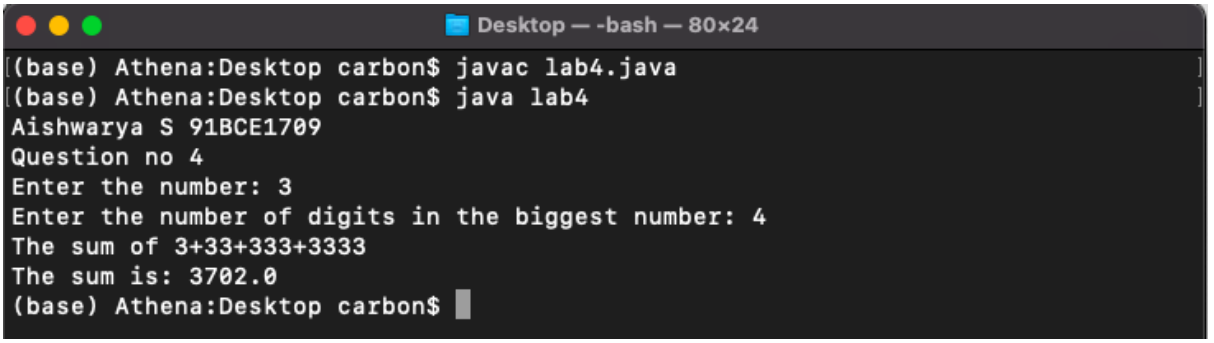


4. ADDITION

CODE:

```
import java.util.*;

import java.lang.*;

class lab4

{

public static void main(String[] args)

{  double sum=0;


Scanner s= new Scanner(System.in);    //System.in is a standard input stream

System.out.print("Aishwarya S 91BCE1709\nQuestion no 4\n");

System.out.print("Enter the number: ");

double a= s.nextDouble();

System.out.print("Enter the number of digits in the biggest number: ");

int n =s.nextInt();

System.out.print("The sum of ");

for(int i=1;i<=n;i++)

{  for(int j=0;j<i;j++)

   { System.out.print((int)a);

   }

   if(i!=n)

   {System.out.print("+");}


   sum=sum+(a*(Math.pow(10,(n-i)))*i);

}

System.out.print("\n"+ "The sum is: " + sum+"\n");

}

}
```

RESULT:



5. BMI

CODE:

```
import java.util.*;

import java.lang.*;

class lab5

{

public static void main(String[] args)

{  System.out.print("Aishwarya S 91BCE1709"+"\n"+"Question no 5\n");

   Formatter form= new Formatter();


Scanner s= new Scanner(System.in);

System.out.print("Enter the height in metres: ");

double h =s.nextDouble();

System.out.print("Enter the weight in kilograms: ");

double w =s.nextDouble();

double bmi=(w)/Math.pow(h,2);

form.format("%.2f", bmi);

System.out.print("BMI is "+ form +"\n");

if(bmi<18.5)

System.out.print("Underweight");

else if(bmi>=18.5 && bmi<25)

System.out.print("Normal Weight");
```

```
else if(bmi>=25 && bmi<30)

System.out.print("Overweight");

else

System.out.print("Obese");

System.out.print("\n");

}

}
```

RESULT: