JAVA PROGRAMMING
LAB 1

P.RAMYAA 2019503547

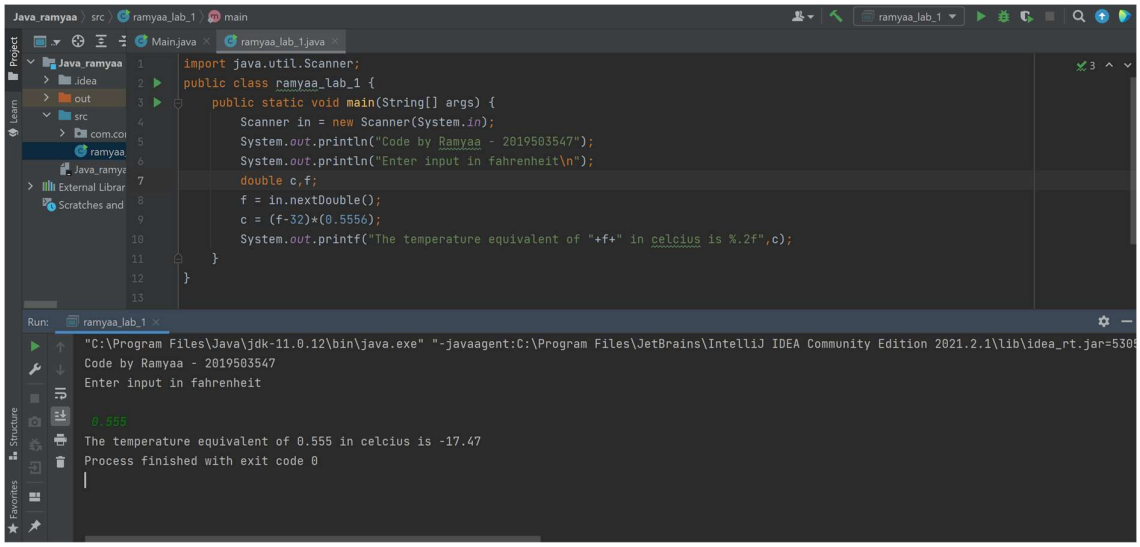
1. WRITE A PROGRAM THAT TAKES AS INPUT FAHRENHEIT TEMPERATURE. IT CONVERTS THE INPUT TEMPERATURE TO CELSIUS AND PRINTS OUT THE CONVERTED TEMPERATURE AS SHOWN IN THE EXAMPLE. THE FORMULA FOR CONVERSION BETWEEN THE TWO IS: C=5/9(F−32), WHERE C IS THE TEMPERATURE IN CELSIUS AND F IS THE TEMPERATURE IN FAHRENHEIT.NOTE: ROUND YOUR ANSWER TO UP TO TWO DECIMAL PLACES.

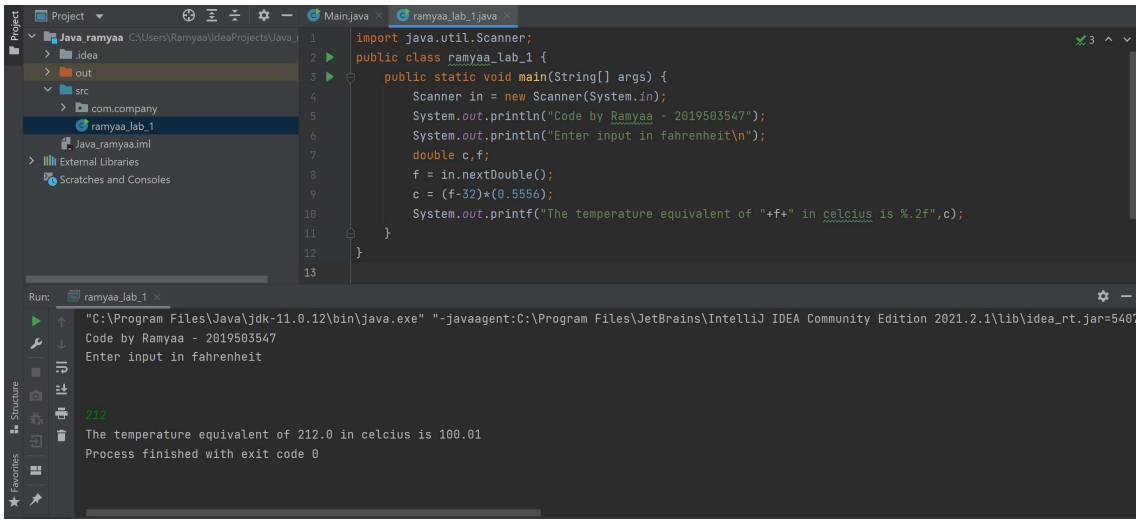
CODE

```
import java.util.*;

public class ramyaa_lab_1 {

   public static void main(String[] args) {

      Scanner in = new Scanner(System.in);

      System.out.println("Code by Ramyaa - 2019503547");

      System.out.println("Enter input in fahrenheit\n");

      double c,f;

      f = in.nextDouble();

      c = (f-32)*(0.5556);

      System.out.printf("The temperature equivalent of "+f+" in celcius is %.2f",c);

   }

}
```

OUTPUT

JAVA LAB 1





2. WRITE A PROGRAM THAT TAKES AS INPUT THREE NUMBERS, U, A, AND T. HERE U STANDS FOR THE INITIAL VELOCITY, A STANDS FOR THE ACCELERATION, AND T STANDS FOR THE TIME DURATION. THE PROGRAM PRINTS THE FINAL VELOCITY (V). V=U+AT RECALL THAT U AND A CAN TAKE ANY REAL (FLOAT) VALUES AS VELOCITY AND ACCELERATION ARE CONTINUOUS VECTOR QUANTITIES (IN PHYSICS). TIME T CAN TAKE NON-NEGATIVE REAL VALUES ONLY, I.E., 0 ≤ T.NOTE: ROUND YOUR ANSWER TO UP TO TWO DECIMAL PLACES.

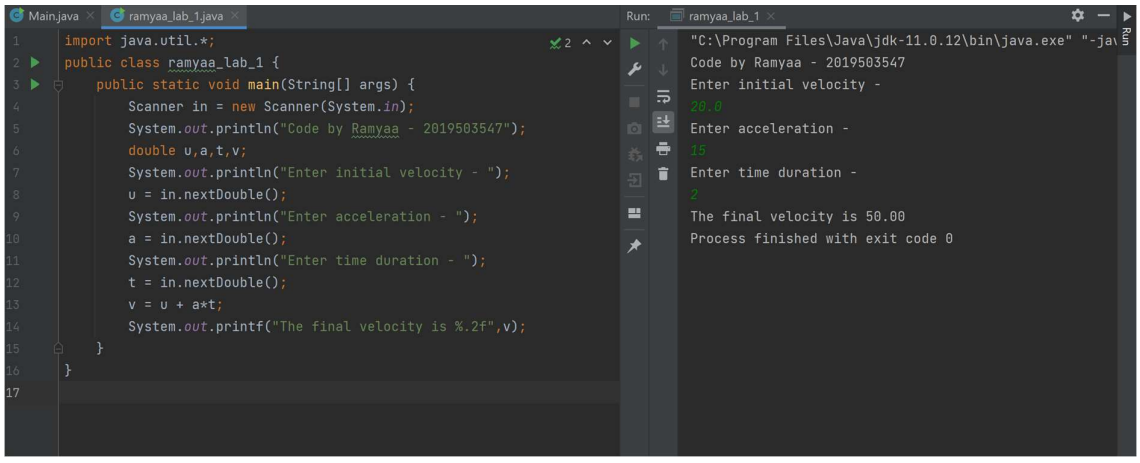
CODE

```
import java.util.*;

public class ramyaa_lab_1 {
```

JAVA LAB 1

```
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Code by Ramyaa - 2019503547");
        double u,a,t,v;
        System.out.println("Enter initial velocity - ");
        u = in.nextDouble();
        System.out.println("Enter acceleration - ");
        a = in.nextDouble();
        System.out.println("Enter time duration - ");
        t = in.nextDouble();
        v = u + a*t;
        System.out.printf("The final velocity is %.2f",v);
    }
}
```

OUTPUT



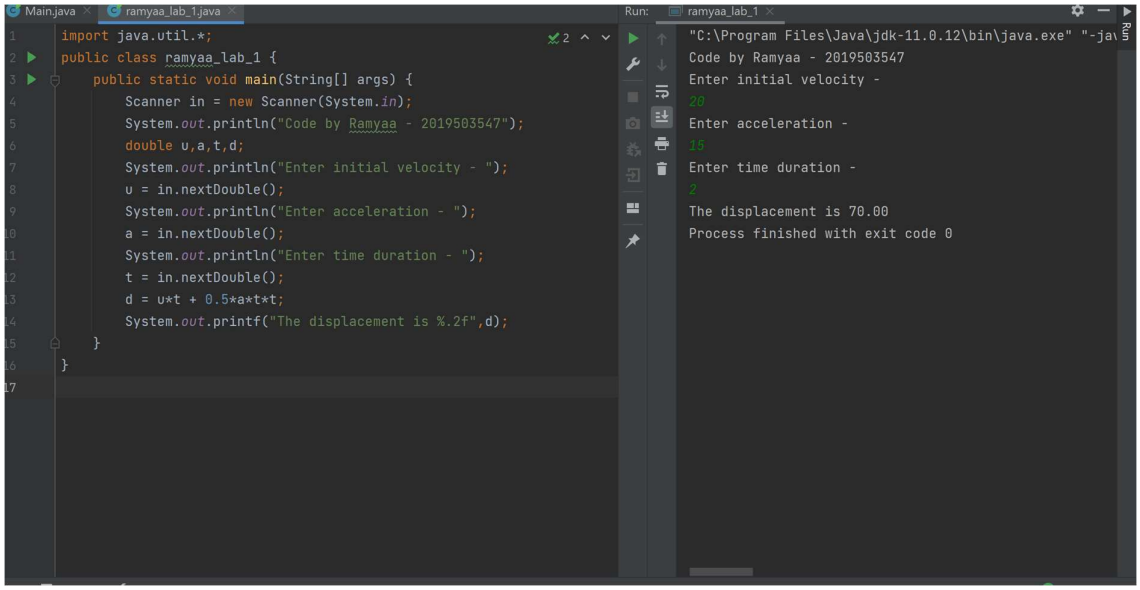
3. WRITE A PROGRAM THAT TAKES AS INPUT THREE NUMBERS, U, A, AND T. HERE U STANDS FOR THE INITIAL VELOCITY, A STANDS FOR THE ACCELERATION, AND T STANDS FOR THE TIME DURATION. THE PROGRAM PRINTS THE DISPLACEMENT COVERED (D) IN TIME T. RECALL THAT U AND A CAN TAKE ANY REAL VALUE AS VELOCITY AND ACCELERATION ARE CONTINUOUS VECTORS (IN PHYSICS). TIME T CAN TAKE NON-NEGATIVE REAL VALUES ONLY, I.E., 0 ≤ T.NOTE: ROUND YOUR ANSWER TO UP TO TWO DECIMAL PLACES.

CODE

```
import java.util.*;

public class ramyaa_lab_1 {

   public static void main(String[] args) {

      Scanner in = new Scanner(System.in);

      System.out.println("Code by Ramyaa - 2019503547");

      double u,a,t,d;

      System.out.println("Enter initial velocity - ");

      u = in.nextDouble();

      System.out.println("Enter acceleration - ");

      a = in.nextDouble();

      System.out.println("Enter time duration - ");

      t = in.nextDouble();

      d = u*t + 0.5*a*t*t;

      System.out.printf("The displacement is %.2f",d);

   }

}
```

OUTPUT

JAVA LAB 1



4. WRITE A PROGRAM THAT TAKES AS INPUT AN INTEGER S, THE NUMBER OF SECONDS ELAPSED FOR A CERTAIN EVENT. THE PROGRAM CONVERTS S TO HOURS (HH), MINUTES (MM), AND SECONDS (SS) AND PRINTS THE OUTPUT AS HH:MM:SS.

CODE

```
import java.util.*;

public class ramyaa_lab_1 {

   public static void main(String[] args) {

      Scanner in = new Scanner(System.in);

      System.out.println("Code by Ramyaa - 2019503547");

      int s,hh,mm,ss;

      System.out.println("Enter number of seconds elapsed - ");

      s = in.nextInt();

      ss = s % 60;

      hh = s / 60;

      mm = hh % 60;

      hh = hh / 60;
```

```
        System.out.printf("Output: %d:%d:%d",hh,mm,ss);
    }
}
```

OUTPUT