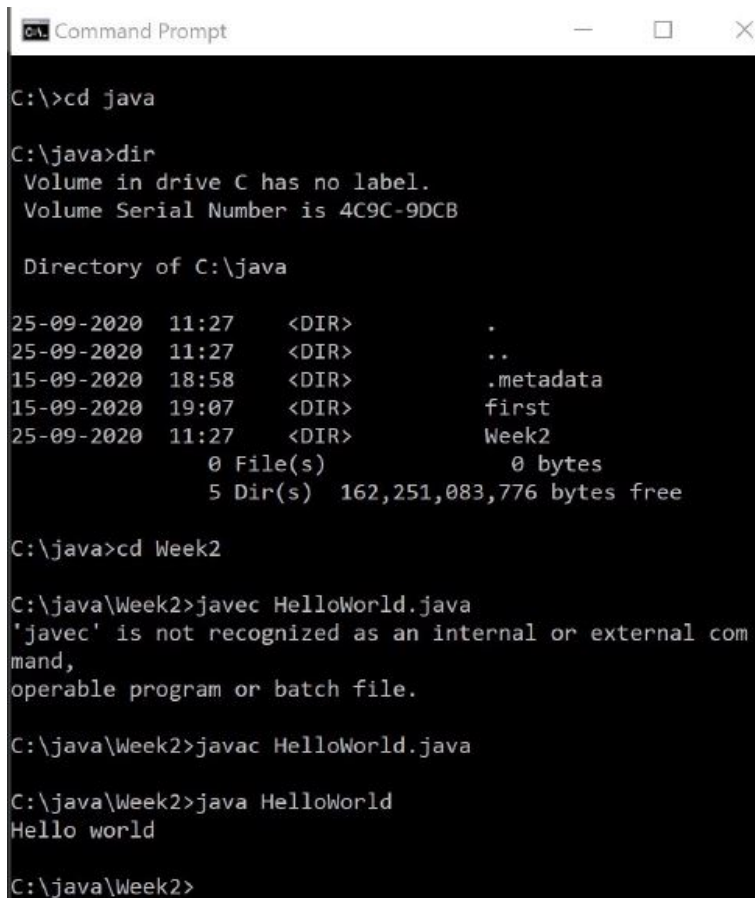


1.

```
public class HelloWorld
{
    public static void main (String args[])
    {
        System.out.println ("Hello world");
    }
}
```

Output:



```
Command Prompt

C:\>cd java

C:\java>dir
Volume in drive C has no label.
Volume Serial Number is 4C9C-9DCB

Directory of C:\java

25-09-2020  11:27    <DIR>        .
25-09-2020  11:27    <DIR>        ..
15-09-2020  18:58    <DIR>        .metadata
15-09-2020  19:07    <DIR>        first
25-09-2020  11:27    <DIR>        Week2
               0 File(s)              0 bytes
               5 Dir(s) 162,251,083,776 bytes free

C:\java>cd Week2

C:\java\Week2>javac HelloWorld.java
'javac' is not recognized as an internal or external com
mand,
operable program or batch file.

C:\java\Week2>javac HelloWorld.java

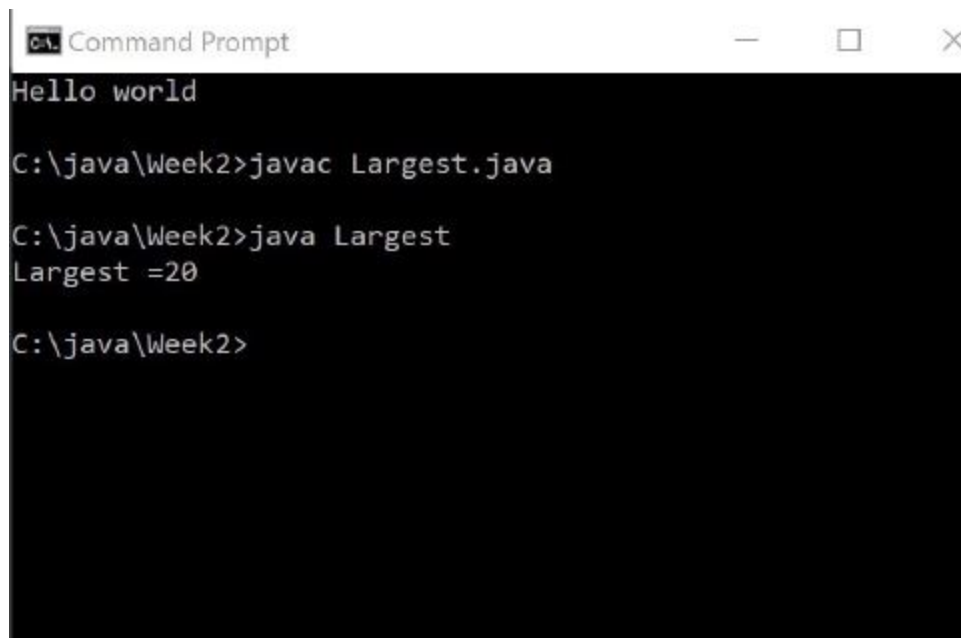
C:\java\Week2>java HelloWorld
Hello world

C:\java\Week2>
```

2.

```
public class Largest
{
    public static void main (String args[])
    {
        int a = 10, b = 20, c = 15, largest;
        if (a > b)
        {
            if (a > c)
                largest = a;
            else
                largest = c;
        }
        else
        {
            if (b > c)
                largest = b;
            else
                largest = c;
        }
        System.out.println ("Largest =" + largest);
    }
}
```

Output:

A screenshot of a Windows Command Prompt window. The title bar reads "Command Prompt". The window has standard Windows window controls (minimize, maximize, close) on the right. The command history shows: "Hello world", "C:\java\Week2>javac Largest.java", "C:\java\Week2>java Largest", "Largest =20", and "C:\java\Week2>".

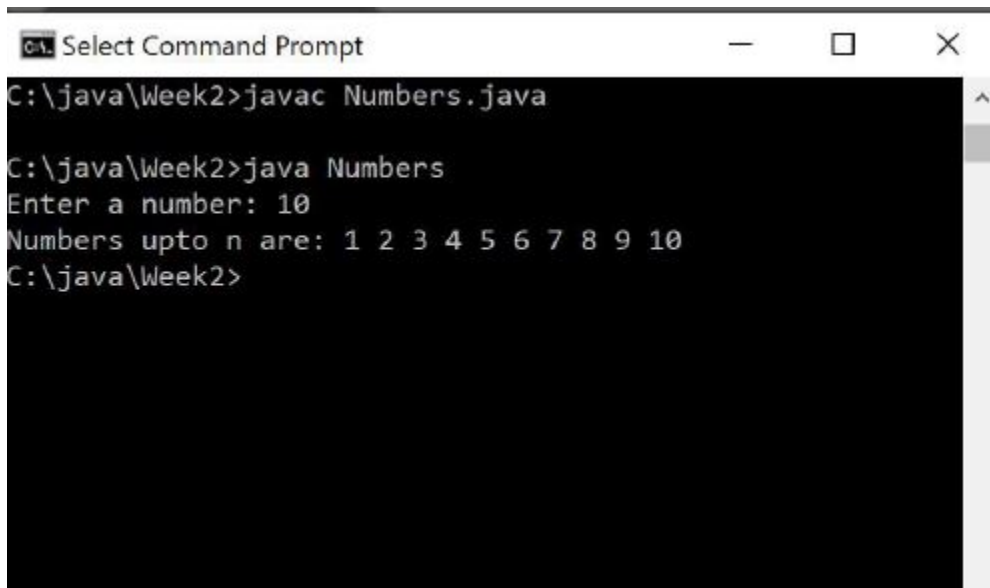
```
Command Prompt
Hello world
C:\java\Week2>javac Largest.java
C:\java\Week2>java Largest
Largest =20
C:\java\Week2>
```

3.

```
import java.util.Scanner;

class Numbers
{
    public static void main (String[]args)
    {
        int n;
        Scanner in = new Scanner (System.in);
        System.out.print ("Enter a number: ");
        n = in.nextInt ();
        System.out.print ("Numbers upto n are: ");
        for (int i = 0; i < n; i++)
        {
            System.out.print (i + " ");
        }
    }
}
```

Output:



```
Select Command Prompt
C:\java\Week2>javac Numbers.java
C:\java\Week2>java Numbers
Enter a number: 10
Numbers upto n are: 1 2 3 4 5 6 7 8 9 10
C:\java\Week2>
```

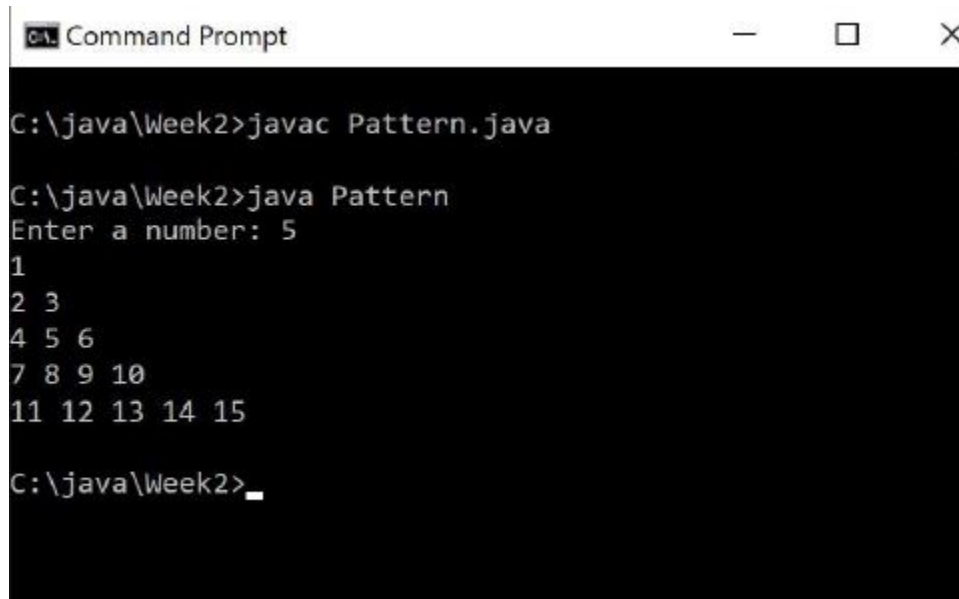
4.

```
import java.util.*;

class Pattern
{
    public static void main (String args[])
    {
        int n, count = 1;
        Scanner in = new Scanner (System.in);
        System.out.print ("Enter a number: ");
        n = in.nextInt ();
        for (int i = 1; i <= n; i++)
        {
            for (int j = 0; j < i; j++)
            {
                System.out.print (count + " ");
                count++;
            }
        }
    }
}
```

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

Output:



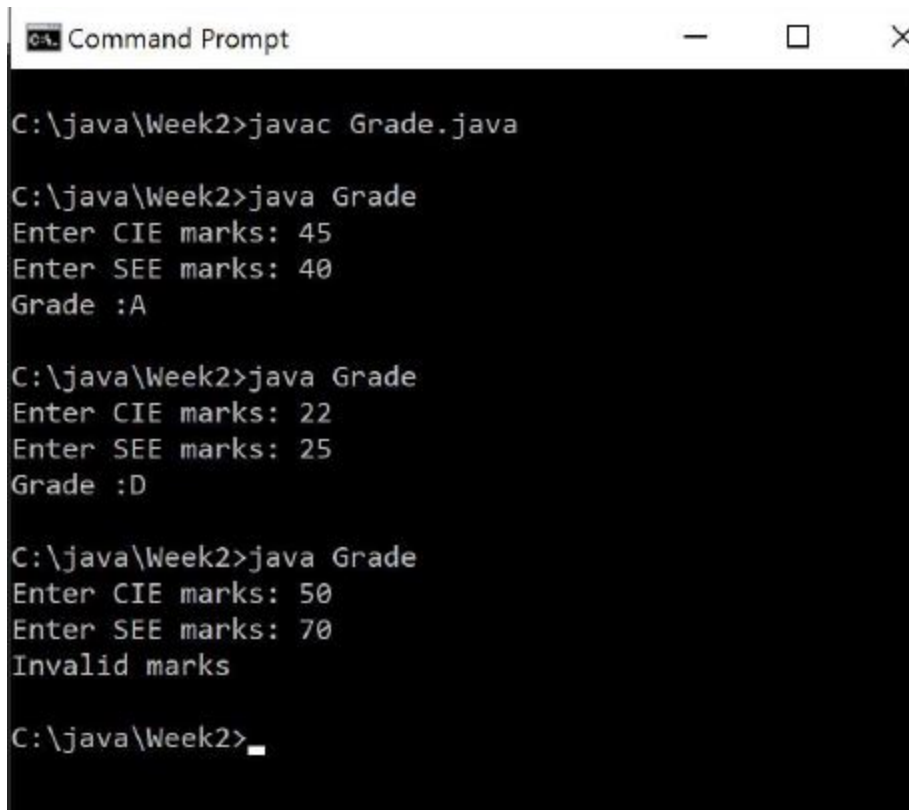
```
C:\ Command Prompt  
C:\java\Week2>javac Pattern.java  
C:\java\Week2>java Pattern  
Enter a number: 5  
1  
2 3  
4 5 6  
7 8 9 10  
11 12 13 14 15  
C:\java\Week2>_
```

5.

```
import java.util.*;  
import java.lang.*;  
class Grade  
{  
    public static void main (String args[])  
    {  
        int cie, see, mark;  
        char grade = '*';  
        Scanner in = new Scanner (System.in);  
        System.out.print ("Enter CIE marks: ");
```

```
    cie = in.nextInt ();  
    System.out.print ("Enter SEE marks: ");  
    see = in.nextInt ();  
    mark = see + cie;  
    if (mark > 100)  
    {  
        System.out.println ("Invalid marks");  
        System.exit (0);  
    }  
    else if (mark >= 90)  
        grade = 'S';  
    else if (mark >= 80)  
        grade = 'A';  
    else if (mark >= 70)  
        grade = 'B';  
    else if (mark >= 60)  
        grade = 'C';  
    else if (mark >= 40)  
        grade = 'D';  
    else  
        grade = 'F';  
    System.out.println ("Grade : " + grade);  
}  
}
```

Output:



```
Command Prompt

C:\java\Week2>javac Grade.java

C:\java\Week2>java Grade
Enter CIE marks: 45
Enter SEE marks: 40
Grade :A

C:\java\Week2>java Grade
Enter CIE marks: 22
Enter SEE marks: 25
Grade :D

C:\java\Week2>java Grade
Enter CIE marks: 50
Enter SEE marks: 70
Invalid marks

C:\java\Week2>_
```

6.

```
import java.util.*;

class PrimeNumbers
{
    public static void main (String args[])
    {
        int m, n, status;

        Scanner in = new Scanner (System.in);

        System.out.print ("Enter m: ");

        m = in.nextInt ();

        System.out.print ("Enter n: ");

        n = in.nextInt ();

        System.out.print ("Prime numbers between m and n are:\n");

        if (m == 0 || m == 1)
```

```
{  
    System.out.print ("1\n");  
    m = 2;  
}  
for (int i = m; i <= n; i++)  
{  
    status = 0;  
    for (int j = 2; j <= i / 2; j++)  
    {  
        if (i % j == 0)  
        {  
            status = 1;  
            break;  
        }  
    }  
    if (status == 0)  
    {  
        System.out.println (i);  
    }  
}  
}
```

Output:



```
Command Prompt
C:\java\Week2>javac PrimeNumbers.java

C:\java\Week2>java PrimeNumbers
Enter m: 1
Enter n: 15
Prime numbers between m and n are:
1
2
3
5
7
11
13

C:\java\Week2>java PrimeNumbers
Enter m: 10
Enter n: 30
Prime numbers between m and n are:
11
13
17
19
23
29

C:\java\Week2>
```

7.

```
#include<stdio.h>
#include<string.h>
int iot;
int advanced_java;
int advanced_data;
typedef struct student
{
    char name[50];
    char course[50];
```

```

} std;

int
main ()
{
    char elective1[50] = "Internet Of Things";
    char elective2[50] = "Advanced Java And J2EEE";
    char elective3[50] = "Advanced DataStructures";

    printf
    ("Courses available are \n \t 1:Internet Of Things\n \t2:Advanced Java And J2EEE\n \t3:Advanced
    DataStructures\n");

    int n;

    int choice;

    printf ("Enter the number of students\n");

    scanf ("%d", &n);

    std s[n];

    for (int i = 0; i < n; i++)
    {
        printf ("Enter the name of student %d \n", (i + 1));

        scanf ("%s", s[i].name);

        fflush (stdin);

        printf ("Enter the elective of student %d \n", (i + 1));

        printf ("enter your choice\n");

        fflush (stdin);

        scanf ("%d", &choice);

        switch (choice)
        {
            case 1:
                strcpy (s[i].course, elective1);

                break;

```

```

        case 2:
            strcpy (s[i].course, elective2);
            break;
        case 3:
            strcpy (s[i].course, elective3);
            break;
    }
    fflush (stdin);
}
for (int i = 0; i < n; i++)
{
    if (strncmp (elective1, s[i].course, strlen (elective1)) == 0)
    {
        printf ("Student %s has selected for %s course\n", s[i].name,
                s[i].course);
        iot++;
    }
    if (strncmp (elective2, s[i].course, strlen (elective2)) == 0)
    {
        printf ("Student %s has selected for %s course\n", s[i].name,
                s[i].course);
        advanced_java++;
    }
    if (strncmp (elective3, s[i].course, strlen (elective3)) == 0)
    {
        printf ("Student %s has selected for %s course\n", s[i].name,
                s[i].course);
        advanced_data++;
    }
}

```

```

}

printf ("*****\n");

printf ("Number of student applied for internet of things is %d\n", iot);

printf ("Number of students applied for Advanced java and J2EEE is %d\n",
        advanced_java);

printf ("Number of student applied for Advanced DataStructures is %d\n",
        advanced_data);

if (iot < 30)
{
    for (int i = 0; i < n; i++)
    {
        if (strcmp (s[i].course, elective1) == 0)
        {
            printf
                (" %s please select from the other two course this course cannot be floated\n",
                 s[i].name);

            printf
                ("2:Advanced Java And J2EEE\n3:Advanced DataStructures\n");

            printf ("Enter your new choice\n");

            scanf ("%d", &choice);

            iot = 0;

            switch (choice)
            {
                case 2:
                    strcpy (s[i].course, elective2);
                    advanced_java++;
                    break;

                case 3:
                    strcpy (s[i].course, elective3);

```

```

        advanced_data++;
        break;
    }
}
}
}
if (advanced_java < 30)
{
    for (int i = 0; i < n; i++)
    {
        if (strcmp (s[i].course, elective2, strlen (elective2)) == 0)
        {
            printf
                (" %s please select from the other two course this course cannot be floated\n",
                 s[i].name);
            printf ("1:Internet Of Things\n3:Advanced DataStructures\n");
            printf ("Enter your new choice\n");
            scanf ("%d", &choice);
            advanced_java = 0;
            switch (choice)
            {
                case 1:
                    strcpy (s[i].course, elective1);
                    iot++;
                    break;
                case 3:
                    strcpy (s[i].course, elective3);
                    advanced_data++;
                    break;
            }
        }
    }
}

```

```

        }
    }
}

if (advanced_data < 30)
{
    for (int i = 0; i < n; i++)
    {
        if (strcmp (s[i].course, elective3, strlen (elective3)) == 0)
        {
            printf
                (" %s please select from the other two course this course cannot be floated\n",
                 s[i].name);
            printf ("1:Internet Of Things\n2:Advanced JAVA and J2EEE\n");
            printf ("Enter your new choice\n");
            scanf (" %d", &choice);
            advanced_data = 0;
            switch (choice)
            {
                case 1:
                    strcpy (s[i].course, elective1);
                    iot++;
                    break;
                case 2:
                    strcpy (s[i].course, elective2);
                    advanced_java++;
                    break;
            }
        }
    }
}

```

```

    }
}

printf ("*****AfterReselection*****\n");

printf ("Number of student applied for internet of things is %d\n", iot);

printf ("Number of students applied for Advanced java and J2EEE is %d\n",
        advanced_java);

printf ("Number of student applied for Advanced DataStructures is %d\n",
        advanced_data);

printf ("*****\n");

for (int i = 0; i < n; i++)
{
    printf ("%s has selected %s course\n", s[i].name, s[i].course);
}
}

```

Output: