1st ShortAssessedExercise1

October 28, 2021

1 Short Assessed Exercise

2 Level 1

2.1 Doga Sular

2.2 4 October 2020

2.3 Version 1

2.4 Summary of the Question

Write a program to print out your initials down the page in block letters using the same letter to draw it out of. A blank line should separate the initials. Each initial should be printed by a separate method. For example, my initials are DS. My program should therefore print:

```
DDDDD
D       D
D        D
D        D
D       D
DDDDD

sssssss
s
s
 sssss
       s
       s
sssssss
```

2.5 The literate program development

2.5.1 printD

What it does   This method prints a large letter D made out of small letter D's ending with a blank line.

Implementation (how it works)   It prints each row of small letter Ds in turn. For example, the top of the D is made of 6 D characters in a row as the big letter is 6 characters wide.

```
[26]:  // Print a large letter D using D characters
       //


       public static void letterD ()


       {

           System.out.println ( "DDDDD " ) ;
           System.out.println ( "D      D" ) ;
           System.out.println ( "D       D" ) ;
           System.out.println ( "D        D" ) ;
           System.out.println ( "D      D" ) ;
           System.out.println ( "DDDDD " ) ;

       // this line is creating a blank line to seperate the two letters.
           System.out.println (" ");
           return;


               }
```

Testing

```
[27]:  letterD();
```

```
DDDDD
D     D
D      D
D      D
D     D
DDDDD
```

2.5.2 printS

What it does   This method prints a large letter S made out of small letter S's

Implementation (how it works)   It prints each row of small letter Ss in turn. For example, the top of the S is made of 6 S characters in a row as the big letter is 6 characters wide.

```
[28]:  // Print a large letter S using S characters
       //
       public static void printS ()
       {
           System.out.println ("sssssss");
           System.out.println ("s");
           System.out.println ("s");
           System.out.println (" sssss ");
```

```
        System.out.println ("       s");
        System.out.println ("       s");
        System.out.println ("sssssss");
         System.out.println();
         return;
    }
```

Testing

```
[29]: printS();
```

```
sssssss
s
s
 sssss
      s
      s
sssssss
```

2.5.3   printDS

What it does   This method prints a large letter D followed by a letter S below it

Implementation (how it works)   This just calls the individual method to print each separate letter in turn, firt D then S. As they each finish by printing a blank line they will be separated by a blank line.

```
[34]: // Print a large letter D followed by a letter S below it
      //
      public static void printDS ()
      {
          printS();
          letterD();
           return;
      }
```

Testing

```
[35]: printDS();
```

```
sssssss
s
s
 sssss
      s
      s
sssssss
```

```
DDDDD
D     D
D      D
D      D
D     D
DDDDD
```

2.5.4 Running the program

Run the following call to simulate running the complete program.

```
[32]: printDS();
```

```
DDDDD
D     D
D      D
D      D
D     D
DDDDD

sssssss
s
s
 sssss
      s
      s
sssssss
```

2.6 The complete program

This version will only compile here. To run it copy it into a file called initials.java on your local computer and compile and run it there.

```java
[33]: /* **************************************
    @author    Doga Sular
    @date      4 October 2020
    @version   1

      A program that prints my initials (DS)
      in big letters made out of small ones.
      **************************************/

    class initials
    {
        public static void main (String [] a)
        {
            printDS();
```

```java
        System.exit(0);
    }

    // Print a large letter D using D characters
    //
    public static void letterD ()
    {
System.out.println ( "DDDDD " ) ;
System.out.println ( "D     D" ) ;
System.out.println ( "D      D" ) ;
System.out.println ( "D       D" ) ;
System.out.println ( "D      D" ) ;
System.out.println ( "DDDDD " ) ;
System.out.println (" ");

        return;
    }

    // Print a large letter s using s characters
    //
    public static void printS ()
    {
System.out.println ("sssssss");
System.out.println ("s");
System.out.println ("s");
System.out.println (" sssss ");
System.out.println ("       s");
System.out.println ("       s");
System.out.println ("sssssss");
        System.out.println();
        return;
    }

    // Print a large letter D followed by a letter S below it
    //
    public static void printDS ()
    {
        letterD();
        printC();
        return;
    }

}
```

END OF LITERATE DOCUMENT