COMP101 LAB2

Requirements

- Print Computer Science Username (U6BH) vertically down the screen in large letters
- Allow the user to define the character each of the large letters is made up of.
- Large letters to be made of a chars and spaces

Analysis and Design

My interpretation of the problem was to have 4 arrays holding each of the letters needed to be printed and a single command which when called prints an array,

The printSymbol function does the following:

FOR LINE IN LETTERARRAY

        REPLACE '*' IN LINE WITH CHARACTER

        PRINT LINE

Where LETTERARRAY is an array made up of the lines needed to make each letter and CHARACTER is a user defined char which the user wants each of the chars that make up the letter to be.

Class Diagram

the shown class diagram shows that there are 2 functions within the program both of which belong to the main class.

GiantLetters
letterB: String[] letterH: String[] letterU: String[] number6: String[]
main() printSymbol(String[], char)

Testing

I tested each letter with a range of values and recorded whether the output was as expected and if not recorded the unexpected outputs. Below is the result of the functions being executed.

printSymbol(giantLetter, char Symbol)

Giant letter was one of 4 values; letterB, letterH, letterU or number6.

I tested each of these values with each of the charactersand recorded the output in this table. (reduced Font size)

	letterB	letterH	LetterU	Number6

*	```*****```
	 ```* *```
	 ```* *```
	 ```*****```
	 ```* *```
	 ```*****```
		```* *```
		 ```* *```
		 ```* *```
		 ```******```
		 ```* *```
		 ```* *```
			```* *```
			 ```* *```
			 ```* *```
			 ```* *```
			 ```* *```
			 ```*****```
				```*****```
				 ```* *```
				 ```*```
				 ```******```
				 ```* *```
				 ```*****```

B	```BBBBBB```
	 ```B B```
	 ```B B```
	 ```BBBBBB```
	 ```B B```
	 ```BBBBBB```
		```B B```
		 ```B B```
		 ```B B```
		 ```BBBBBB```
		 ```B B```
		 ```B B```
			```B B```
			 ```B B```
			 ```B B```
			 ```B B```
			 ```B B```
			 ```BBBBB```
				```BBBBB```
				 ```B B```
				 ```B```
				 ```BBBBBB```
				 ```B B```
				 ```BBBBB```

H	```HHHHHH```
	 ```H H```
	 ```H H```
	 ```HHHHHH```
	 ```H H```
	 ```HHHHHH```
		```H H```
		 ```H H```
		 ```H H```
		 ```HHHHHHH```
		 ```H H```
		 ```H H```
			```H H```
			 ```H H```
			 ```H H```
			 ```H H```
			 ```H H```
			 ```HHHHH```
				```HHHHH```
				 ```H H```
				 ```H```
				 ```HHHHHH```
				 ```H H```
				 ```HHHHH```

U	```UUUUUU```
	 ```U U```
	 ```U U```
	 ```UUUUUU```
	 ```U U```
	 ```UUUUUU```
		```U U```
		 ```U U```
		 ```U U```
		 ```UUUUUUU```
		 ```U U```
		 ```U U```
			```U U```
			 ```U U```
			 ```U U```
			 ```U U```
			 ```U U```
			 ```UUUUU```
				```UUUUU```
				 ```U U```
				 ```U```
				 ```UUUUUU```
				 ```U U```
				 ```UUUUU```

6	```666666```
	 ```6 6```
	 ```6 6```
	 ```666666```
	 ```6 6```
	 ```666666```
		```6 6```
		 ```6 6```
		 ```6 6```
		 ```6666666```
		 ```6 6```
		 ```6 6```
			```6 6```
			 ```6 6```
			 ```6 6```
			 ```6 6```
			 ```6 6```
			 ```66666```
				```66666```
				 ```6 6```
				 ```6```
				 ```666666```
				 ```6 6```
				 ```66666```

I then tested all 4 letters together printing their own respective letters.

```
C:\Users\BenHa\OneDrive\Documents\JAVA\Lab2>java GiantLetters

U     U
U     U
U     U
U     U
U     U
U     U
 UUUUU

 66666
6     6
6
666666
6     6
6     6
 66666

BBBBBB
B     B
B     B
BBBBBB
B     B
B     B
BBBBBB

H     H
H     H
H     H
HHHHHHH
H     H
H     H
H     H

C:\Users\BenHa\OneDrive\Documents\JAVA\Lab2>
```