## **CSC 335 – Happy Primes**

```
Run: MainApp ×

/ /usr/lib/jvm/jdk-14.0.2/bin/java -javaagent:/snap/intellij-idea-community/249/lib/idea_rt.jar=38681:/snap/
Enter the integer number of Happy Primes that you would like: 15

7

13

19

79

97

103

109

139

167

193

239

265

293

Process finished with exit code 0
```

For this program, I started by researching what happy numbers are. Then I wrote the class to check whether a number is prime, since that is an assignment I have had before. I tested that class using different numbers, then made a test loop to print out the first n prime numbers (I hardcoded n at this point for convenience). Finally, I worked on the class to test whether a number is happy. I admit I was a little lost at first, but I realized if I could isolate the last digit of the number (a technique I learned in an earlier class), I could square and sum that with the square of each next digit. I used techniques I learned in my 210 and 110 classes to do so.

To ensure that the program was correct, I tested each class individually, comparing each to a list of happy or prime numbers, then tested them together with the complete program and compared those to a list of happy-prime numbers.