Programming Assignment 3
Due: Sept 24, 2020@11:59pm

Create a Java class file for the below specification. Name your source files according to its Programming Assignment identifier, except replace the period with an underscore. For example, if the Programming Exercise identifier is P1.15, then name your java source file P1_15.java.

```
public class E4_17 {
    public static void main(String[] args) {
        //stub

    }
}
```

E7.5 Compute the alternating sum of all elements in an array. For example, if your program reads the input

1 4 9 16 9 7 4 9 11

then it computes

1 – 4 + 9 – 16 + 9 – 7 + 4 – 9 + 11 = –2

P6.5 Prime numbers. Write a program that prompts the user for an integer and then prints out all prime numbers up to that integer. For example, when the user enters 20, the program should print
2 3 5 7 11 13 17 19

Recall that a number is a prime number if it is not divisible by any number except 1 and itself.
The *modulus* operator in Java is the percent character (%) – i.e (n%10 means modulus 10, for n=12345, 12345%10 means remainder when 12345/10 which would be 5)

Use a class PrimeGenerator that gets the user input through the constructor with methods nextPrime and isPrime. The method isPrime returns true if the entered number is a prime. The method nextPrime return the next prime leading up to the input.

The P6_5 class, has a main method that reads user input, constructs a PrimeGenerator object, and prints the primes.

Submission

1. Push your project directory along with the source to remote bitbucket repository by the due date.
2. Invite and share your project repository the Grader farha.kauser@sjsu.edu) and Instructor (ramin.moazeni@sjsu.edu).
3. Submit a Readme.pdf to Canvas including your name, repository access link, instructions to run your program (if any), snapshot of your running program and citations (if any)

4. Your project directory will be graded according to the state your project directory was in at due time when fetched.