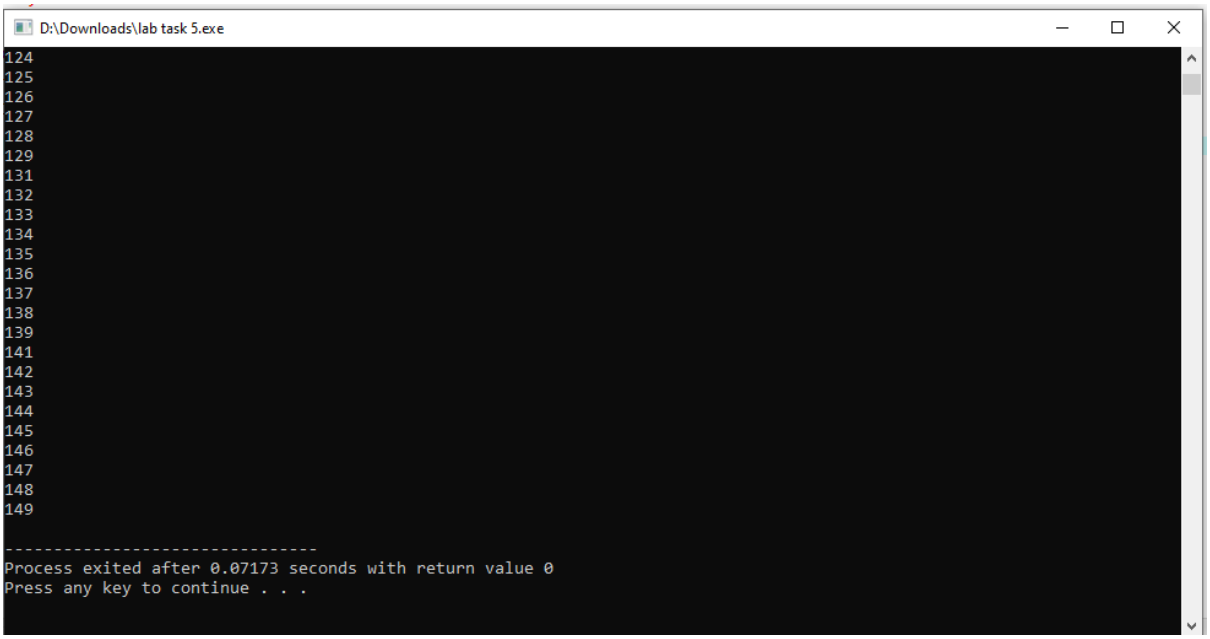
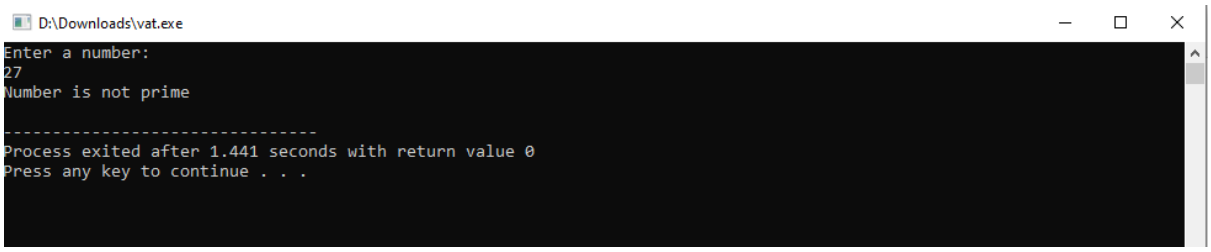
Fundamentals of Programming
ME-15
Section B
1st Semester
Date of Submission: 24/10/2023
Haniyyah Abbas 481755

```
#include<iostream>

using namespace std;

int main () {

        for (int x; x <= 150; x++) {

                if (x % 10 == 0) {     /*when using the continue statement, we have to write a condition that is true, which will be overlooked, so in the output we get values that don't follow the condition.*/

                continue;

                }

        cout<<x<<endl;   //the output will show numbers that are not multiples of ten then

        }

        return 0;

}
```



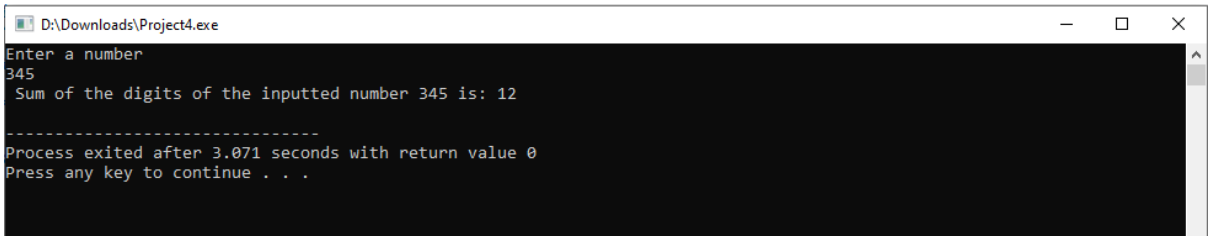

```
#include<cmath>

int main(){

	bool prime = true;   /*using bool to show whether the number inputted follows the condition or not*/

	int num;

	cout<<"Enter a number:"<<endl;

	cin>>num;

	for(int x=2; x<=num; x++){

	if (num % x == 0){

	cout<<"Number is not prime"<<endl;

	prime = false;

	break;}

}

if (prime == true){

cout<<"Number is prime"<<endl;}

return 0;

}
```




```
int main (){
	int num1, num2, num3, sum=0;
	cout<<"Enter a number"<<endl;
	cin>>num1;
	num3 = num1;
	while(num1>0) {
		num2 = num1 % 10;   //remainder obtained
		sum += num2;   //remainder added to the sum
		num1 /= 10;   /*quotient of the first statement is now num1 and the whole process is repeated.*/
	}
	cout<<" Sum of the digits of the inputted number "<<num3<<" is: "<<sum<<endl;
	return 0;
}
```

/*these statements after ‘while’ mean that dividing num1 by ten should give us a remainder of num2, which is added to the sum (it is equal to zero); the new value of num1 is divided by ten again and then the final number obtained keeps going through the loop. Dividing num1 by ten gives us a number in decimals but because we've declared these numbers as integers, the digit before the decimal will be considered only. That number will then be divided by ten again and the whole process will be repeated until num1 has reached zero. */

/*we have to declare num1 (the inputted number) as num3 because otherwise the computer will print num1 as 0 instead. Due to the loop num1 will constantly be divided until it becomes zero, so putting it equal to num3 will store the original number and in the end print that number as well. */


D:\Downloads\Project4.exe
Enter a number
345
Sum of the digits of the inputted number 345 is: 12

Process exited after 3.071 seconds with return value 0
Press any key to continue . . .