FUNDAMENTALS OF PROGRAMMING

MANUAL 04 HOME TASKS

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SECTION C

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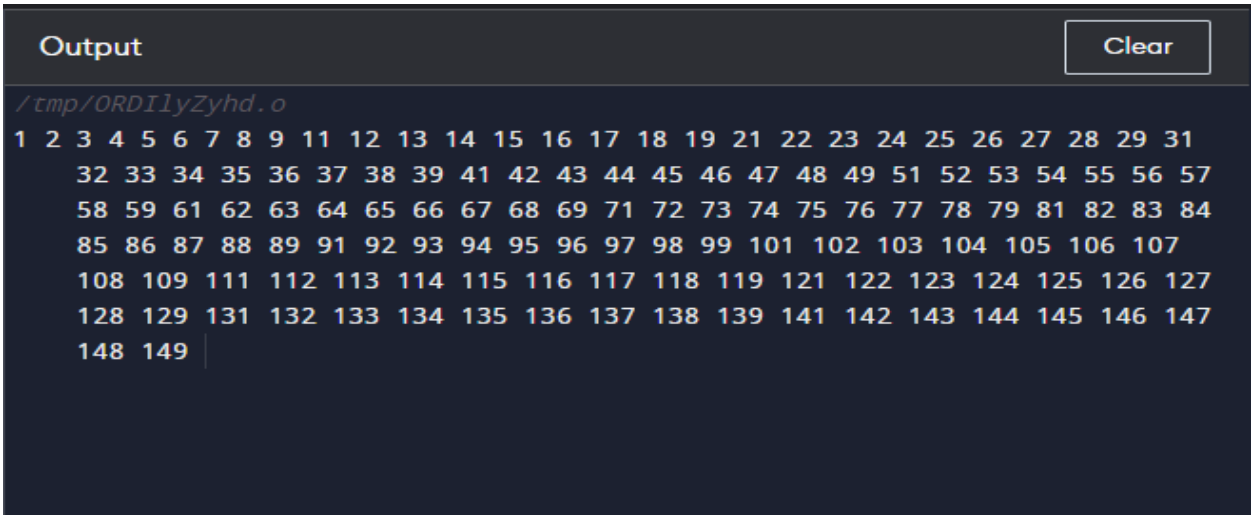
TASK01

Write a program in C++ that prints the numbers from 1 to 150 except the multiples of 10.

Make use of the continue statement.

SOL:

```
#include <iostream>
using namespace std;
int main() {
//using 'for' loop with the starting point of variable as 1, going up to 150 with increment of 1.//
for (int i = 1; i <= 150; i++) {
if (i % 10 == 0) {
continue;
//skipping the number divisible by 10//
}
cout << i << " ";
}
return 0;
}
```

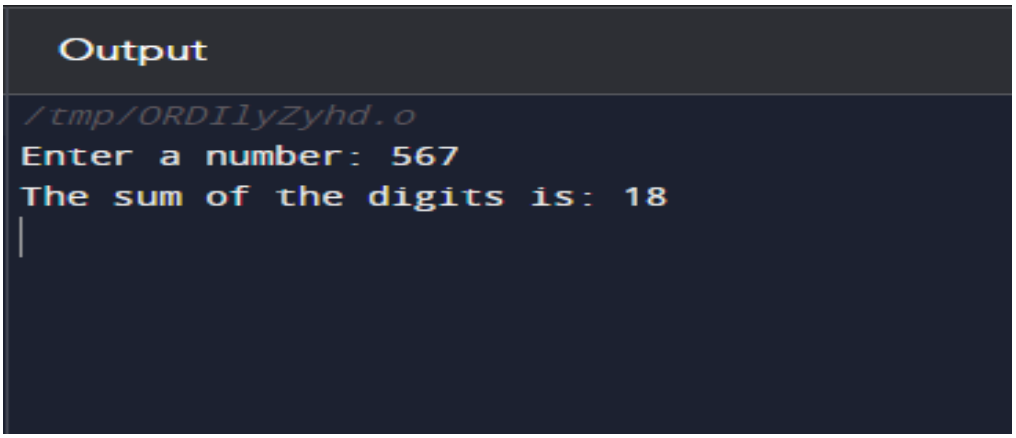


TASK02

Write a C++ program to find the sum of digits of a number.

SOL:

```
#include <iostream>
using namespace std;
int main() {
int number, sum = 0;          //declaring variables//
cout << "Enter a number: "; //getting the number from user//
cin >> number;
while (number != 0)           //using 'while' loop and running it until the value becomes zero//
{
sum += number % 10;           //using '%' operator to deal with the individual digits//
number /= 10;                 //using '/' operator to get rid of already calculated digit//
}
cout << "The sum of the digits is: " << sum << endl;
return 0;
}
```



TASK 03

Write a program in C++ to check whether a number is prime or not.

SOL:

```
#include <iostream>
using namespace std;
int main() {
int number;
cout << "Enter a positive integer: ";
cin >> number;
if (number <= 1) {
cout << number << " is not a prime number." ;    //printing  this if the number is zero or negative//
} else {
int i;
for (i = 2; i * i <= number; i++)
//using 'for' loop with initial value of 2 up to the value of entered number//
{
if (number % i == 0) {
cout << number << " is not a prime number." ;   //printing this if the remainder of number/I is zero//
break;
}}
if (i * i > number) {
cout << number << " is a prime number.";
}}
return 0; }
```