NUST

School of Mechanical & Manufacturing Engineering

FOP Assignment:

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Section: A

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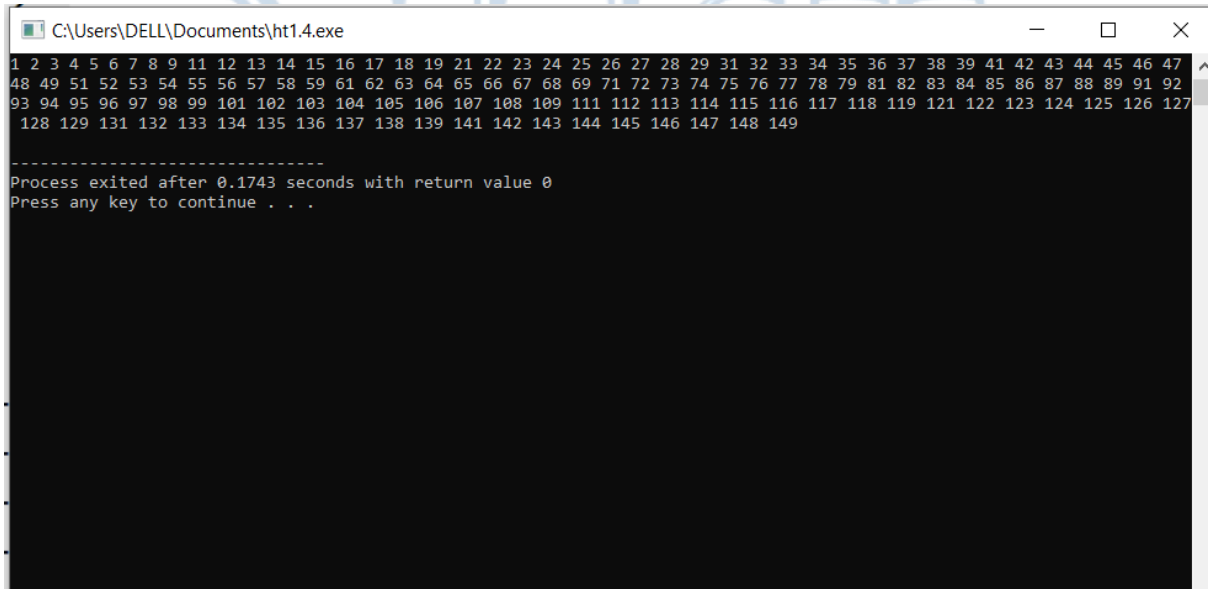
1. Write a program in C++ that prints the numbers from 1 to 150 except the multiples of 10. Make use of the continue statement.

```cpp
#include <iostream>

using namespace std;

int main() {
  for (int i = 1; i <= 150; i++) {
    if (i % 10 == 0) {
      continue;
    }
    cout << i << " ";
  }
  cout << endl;

  return 0;
}
```



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

   The sum of digits means adding all the digits of any number, for example, we take any number like 358. Its sum of all digits is 3+5+8=16.

```cpp
#include <iostream>

using namespace std;

int main() {
  int number, sum = 0;
  cout << "Enter a number: ";
  cin >> number;

  while (number > 0) {
    int digit = number % 10;
    sum += digit;
    number /= 10;
  }

  cout << "The sum of digits of " << number << " is: " << sum << endl;

  return 0;
}
```

```
C:\Users\DELL\Documents\ht2.4.exe
Enter a number: 381
The sum of digits of 0 is: 12

--------------------------------
Process exited after 3.194 seconds with return value 0
Press any key to continue . . .
```

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

```cpp
#include <iostream>
#include <cmath>
using namespace std;

int main()
{
    int n;
    bool is_prime = true;
    cout << "Enter a positive integer: ";
    cin >> n;
    if (n == 0 || n == 1)
    {
        is_prime = false;
    }
    else // otherwise
    {
        for (int i = 2; i <= sqrt(n); i++)
        {
            if (n % i == 0)
            {
                is_prime = false;
                break;
            }
        }
    }
    if (is_prime)

    {
        cout << n << " is a prime number." << endl;
    }
    else
    {
        cout << n << " is not a prime number." << endl;
    }
    return 0;
}
```

```
C:\Users\DELL\Documents\ht3.4.exe
Enter a positive integer: 7
7 is a prime number.

--------------------------------
Process exited after 7.664 seconds with return value 0
Press any key to continue . . .
```

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