NUST

NATIONAL UNIVERSITY
OF SCIENCES & TECHNOLOGY

FUNDAMENTALS OF PROGRAMMING

LAB TASKS

ME-15-C

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TASK-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>

int main() {
    int i = 1;
    while (i <= 150) {
        if (i % 10 != 0) {
            std::cout << i << " ";
        }
        i++;
    }
    return 0;
}
```

```
/tmp/RnjkhY7t47.o
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 27 28 29 31 32 33 34 35
36 37 38 39 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 61 62 63 64 65
66 67 68 69 71 72 73 74 75 76 77 78 79 81 82 83 84 85 86 87 88 89 91 92 93 94 95
96 97 98 99 101 102 103 104 105 106 107 108 109 111 112 113 114 115 116 117 118
119 121 122 123 124 125 126 127 128 129 131 132 133 134 135 136 137 138 139 141
142 143 144 145 146 147 148 149
```

TASK-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;

    for (; number != 0; number /= 10) {
        sum += number % 10;
    }

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

    return 0;
}
```

```
/tmp/RnjkhY7t47.o
Enter a number: 63
The sum of the digits is: 9
```

TASK-3

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

```cpp
#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." << endl;
    } else {
        int i = 2;
        while (i * i <= number) {
            if (number % i == 0) {
                cout << number << " is not a prime number." << endl;
                break;
            }
            i++;
        }

        if (i * i > number) {
            cout << number << " is a prime number." << endl;
        }
    }

    return 0;
}
```

```
/tmp/RnjkhY7t47.o
Enter a positive integer: 7
7 is a prime number.
```