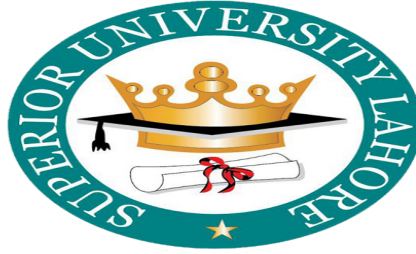


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Lab Manual

Computer Science for Session 2019 (Semester Fall-2019)

Programing Fundamentals

(Lab 6)

Target: Looping Structure (for, while & do-while)

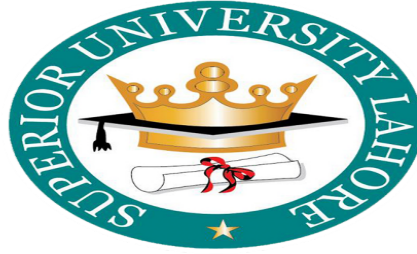
Problem Set 1

- Write a C++ program to find power of a number using while loop.
- Write a C++ program to find all factors of a number.
- Write a C++ program to calculate factorial of a number.
- Write a C++ program to find Highest Common Factor (HCF)(GCD) of two numbers.
- Write a C++ program to find LCM (Least Common Multiple) of two numbers.
- Write a C++ program to check whether a number is Prime number or not.

Problem Set 2

- Write a C++ program to find all prime factors of a number.
- Write a C++ program to check whether a number is Armstrong number or not.
- Write a C++ program to check whether a number is Perfect number or not.
- Write a C++ program to check whether a number is Strong number or not.
(Hint :Strong number is a number whose sum of all digits' factorial is equal to the number 'n'.)
- Write a C++ program to print all Strong numbers between 1 to n.

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Problem Set 3

- Write a C++ program to print the following star pattern.

```
*
* *
* * *
* * * *
* * * * *
```

- Write a C++ program to print the following star pattern.

```
*
* * *
* * * * *
* * * * * *
* * * * * * *
```

- Write a C++ program to print the following star pattern.

```
* * * * *
* * * *
* * *
* *
*
```

- Write a C++ program to print the following star pattern.

```
* * * * *
* * * *
* * *
* *
*
```