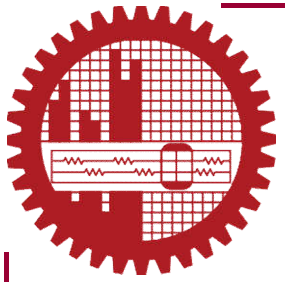

ICT 5101

Lecture 8

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Class Assignment

- Write a program named classassignment6.c
- The program should take a number as input
- In the program, write a function void showTime(int seconds), which will take a number as input and converts the number in hour : minute : second format.
- The function should output the converted format.
- Example:
  - Input = 4520
  - Output: 1 : 15 : 20

Global and Local Variable

- Global Variable
  - A variable that is declared outside the function
  - It can be initialized during declaration
  - Any function in the program can use the variable
- Local Variable
  - A variable that is declared inside a function
  - It can be initialized during declaration
  - Only the function where it is declared can use the variable

Global and Local Variable

```
#include<stdio.h>
int size = 10; // this is global and initialized
int n;                  // this is global but not initialized
int add(){
        n =10;
        size++;
}
int main(){
        int x;          // this is local
        int n = 5;  // this is local
}
```

Variable Scope

- Local variable can be used within the function it is declared
- Global variable can be used in any function within the program
- There can be a local variable and a global variable with the same name
  - In such case, the local variable will be used not the global one

Variable Scope

```
#include<stdio.h>
int n = 100;                    // this is global but not initialized
int add(){
        printf("%d". n);   // this will print 100 (global)
}
int main(){
        int n = 5;  // this is local
        printf("%d". n);   // this will print 5 (local)
}
```

Solution to String Reverse

```
void reverseString(char *inStr){
    int len = strlen(inStr);
    int m, n;
    char temp;
    for (m =0, n = len -1; m<len/2; m++, n--){
        temp = *(inStr+m);
        *(inStr+m) = *(inStr+n);
        *(inStr+n) = temp;
    }
}
```

Exercise

- Write a program named exercise.c
- The program should have 6 variables globally declared:
  - hour1, min1, sec1, hour2, min2, sec2
- These represents two times:
  - hour1:min1: sec1 and hour2:min2:sec2
- In the program, add these 2 time values and display
- Example:
  - Input = 3:50:20 and 4:15:50
  - Output: 8:06:10