

### Dynamic initialization of variables

- Initialisation of variables at runtime.
- In C++, a variable can be initialised at run time using expressions at the place of declaration.

e.g:-    int n = strlen(string);

float area = 3.14159 \* rad \* rad;

- Thus both declaration and initialisation of a variable can be done simultaneously at the place where the variable is used for the first time.
- Dynamic initialization is extensively used in OOP.
- We can create exactly the type of object needed, using information that is known only at the run time.

### Dynamic initialization of Objects

- Objects of a class can be initialized dynamically.
- That is, the initial value of an object may be provided during runtime.
- Advantage: We can provide various initialisation formats using overloaded constructors.

e.g:-    class deposit  
{  
    public:  
        float fixed\_deposit(int p, int y, float r=0.12);  
};  
int main()  
{  
    deposit D;  
    int p, y;  
    cout << "Enter amount and year:";  
    cin >> p >> y;  
    D.fixed\_deposit(p, y, r);  
    return 0;  
}