## Launchpad Deepak Aggarwal

Dynamic Allocation,
Object Oriented
Programming-1



# Object Oriented Programming



#### C++ Classes

- 1. Classes & Objects
- 2. Data
- 3. Functions



#### Classes & Objects

- Blueprint to generate instances of same nature
- 2. Each individual instance is an object



### Access Modifiers



## How to create Objects?



## Default methods with every class



#### Constructor and Default Methods

- Constructor(Java and C++)
- Copy Constructor(C++)
- Copy Assignment Operator(C++)
- 4. Destructor(C++)



#### User defined constructors



When are objects created on the stack and when are they created on the heap?



## Lets look at examples



### Shallow & Deep copy



#### Initialization List



#### Const Data Members



#### Reference Data members



#### Static Data Members



#### Constant Functions



## Operator Overloading



#### Operator Overloading

```
class pair
      public:
      int x,y;
      bool operator < (const pair& p) const
            if(x==p.x) return y<p.y;
            return x<p.x;
```



### Static functions

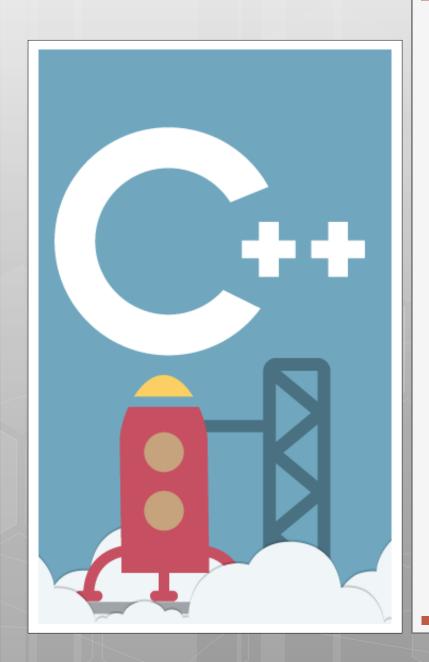


#### Self Referential Classes



#### Friend Classes & Functions





#### Thank You!

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