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#### Launchpad Lecture -11

Object Oriented Programming-1

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# 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

- 1. Constructor(Java and C++)
- Copy Constructor(C++)
- Copy Assignment Operator(C++)
- 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;
```



# How to enable operator Cascading?



## Static functions

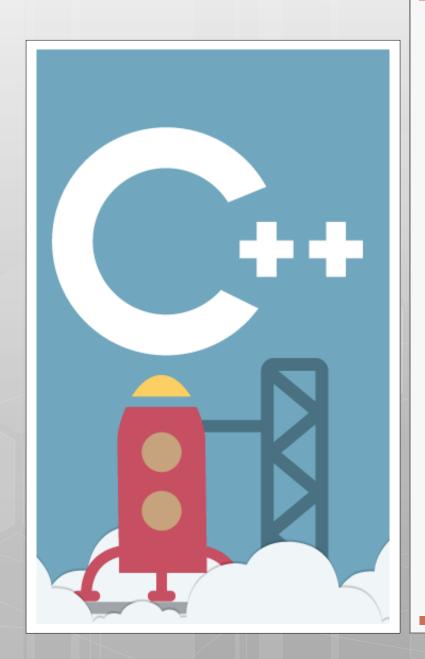


### Self Referential Classes



### Friend Classes & Functions





#### Thank You!

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