


# Class Types

- Are data types encapsulating attributes and member functions
- Can be classes,  structs, and unions.
- Classes are quite similar to structs and unions.

 Use the term class through this tutorial.

```
class Account{
public:
    Account(double b);
    void deposit(double amt);
    void withdraw(double amt);
    double getBalance() const;
private:
    double balance;
};
```

# Objects

- Are instances of a class
- Class stand for objects of the same kind with similar member functions and attributes. Objects are concrete examples of a class that exist at run time.

- **Object instantiation**

```
Account account(100.0);
```

- Create an object `account` of type `Account`.
- Initialize the object.
- Make it known to the compiler.

# Access of class members

Thanks to the operator (.) or (->) you can access the class members.

```
Account acc(200.0);  
Account* accPtr = new Account(200.0);  
  
acc.balance = 500.0;           // ERROR; balance is private  
acc.deposit(200.0);  
  
accPtr->balance = 500.0;       // ERROR; balance is private  
accPtr->deposit(200.0);
```



Based on the access rights, the compiler decides if the access is possible.