

Object-oriented Programming

Lecture 3

Access Modifiers

- Access modifiers are used to control access to class members



- **public**, **private** & **protected** are three of the access modifiers available in C++
- In C++, class members are considered **private** when no access modifier is used

Example

```
class BankAccount
{
    int accountNo;
    private:
        int PIN;
    public:
        int accountType;
}
```

Getter/Setter Functions

- Getter functions (or accessor functions) are used to read value of a private member of some class
- Setter functions (or mutator functions) are used to modify the value of a private member of some class

Example

```
class BankAccount
{
    int PIN;           //private variable
    public:
    int get_PIN()
    {
        return PIN;
    }
};
```

Example

```
class BankAccount
{
    int accountNo;    //private variable
    public:
    void set_accountNo(int num)
    {
        accountNo = num;
    }
}
```

Getter/Setter Functions

- Can we use just a single setter function for all the class member variables?
 - *Bad idea! But why?*
 - *Because it will cause needless dependency between variables*
- Can we use just a single getter function for all the class member variables?
 - *Bad idea! But why?*
 - *You cannot return more than one values in a function (and should not actually)*