# Access Rights

In this lesson, we'll learn about access rights of inheritance.

WE'LL COVER THE FOLLOWING

- Scope of access rights
- Is-a relations
  - public
  - protected
  - private

## Scope of access rights

The access rights of the inheritance determine which functionalities of the base class can be used in the derived class.

- A class can be derived `public`, `protected`, or `private` from its base class.
- For classes, the default access right is `private`; for structs, it's `public`.

`class BankAcc: Acc{...}` is the same as `class BankAcc: private Acc{...}`

## Is-a relations

The derived class and the base class have an is-a relationship. Public inheritance is called an is-a relationship because the derived class has the same interface as the base class. The derived class is a specialization of the base class.

### public

```
class BankAccount: public Account{ ...
```

`public` and `protected` members in the Account class are `public` and `protected` in the BankAccount class.

`protected` in the BankAccount class.

## protected

```
class BankAccount: protected Account{ ...
```

`public` and `protected` members in the Account class are `protected` in the BankAccount class.

## private

```
class BankAccount: private Account{ ...
```

`public` and `protected` members in the Account class are `private` in the BankAccount.

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In the next lesson, we'll look at the examples of inheritance.