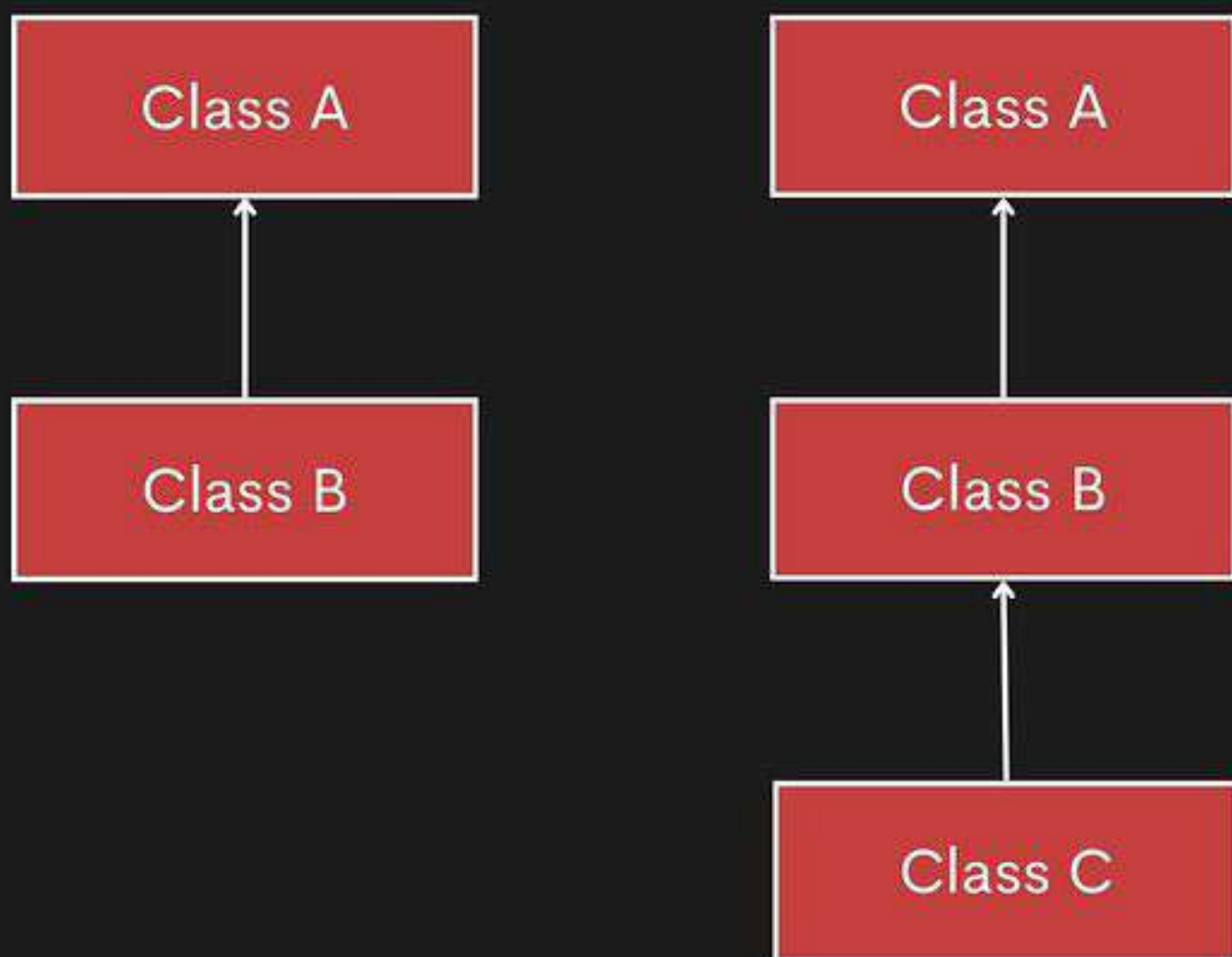


WHY USE INHERITANCE?



accNo	balance	type
12345	\$500	savings
55566	\$1000	Checking
67890	\$5000	Deposit

Suppose You are building a
java program that manages
your bank account

CHECKING ACCOUNT

SAVING ACCOUNT

DEPOSIT ACCOUNT

Assume you have three types of
accounts in your bank program

CHECKING ACCOUNT
Account No : 123 Balance : \$900

SAVING ACCOUNT
Account No : 124 Balance : \$100

DEPOSIT ACCOUNT
Account No : 125 Balance : \$500

They all share some similar
information like account no
and the balance in them

CHECKING ACCOUNT
Account No : 123 Balance : \$900 Limit: \$50,000

SAVING ACCOUNT
Account No : 124 Balance : \$100 Withdrawal: 3/6

DEPOSIT ACCOUNT
Account No : 125 Balance : \$500 Expires: 1-1-2040

But they all have different attributes as well, Like checking accounts may have credit limits and savings acc. have withdrawal limits and deposit accounts have expiry date

If you want to implement in this java you can implement it in one single class called BankAccount which means you have to include everything in that class

```
class BankAccount {  
    int type;  
    String accNumber;  
    double balance;  
    double limit;  
    int withdrawal;  
    Date expiryDate;  
}
```

BankAccount.java

But it doesn't make sense to have an expiry date for a savings account or a withdrawal limit for a checking account

```
class Checking {
```

```
    String accNumber;
```

```
    double balance;
```

```
    double limit;
```

```
}
```

Checking.java

```
class Savings {
```

```
    String accNumber;
```

```
    double balance;
```

```
    int withdrawal;
```

```
}
```

Savings.java

```
class Deposit {
```

```
    String accNumber;
```

```
    double balance;
```

```
    Date expiry;
```

```
}
```

Deposit.java

Another option is you can create a Separate class for each account type but this also means that all the common area is repeated throughout the three classes


```
class Checking {  
    String accNumber;  
    double balance;  
    int bankCode  
    double limit;  
}
```

Checking.java

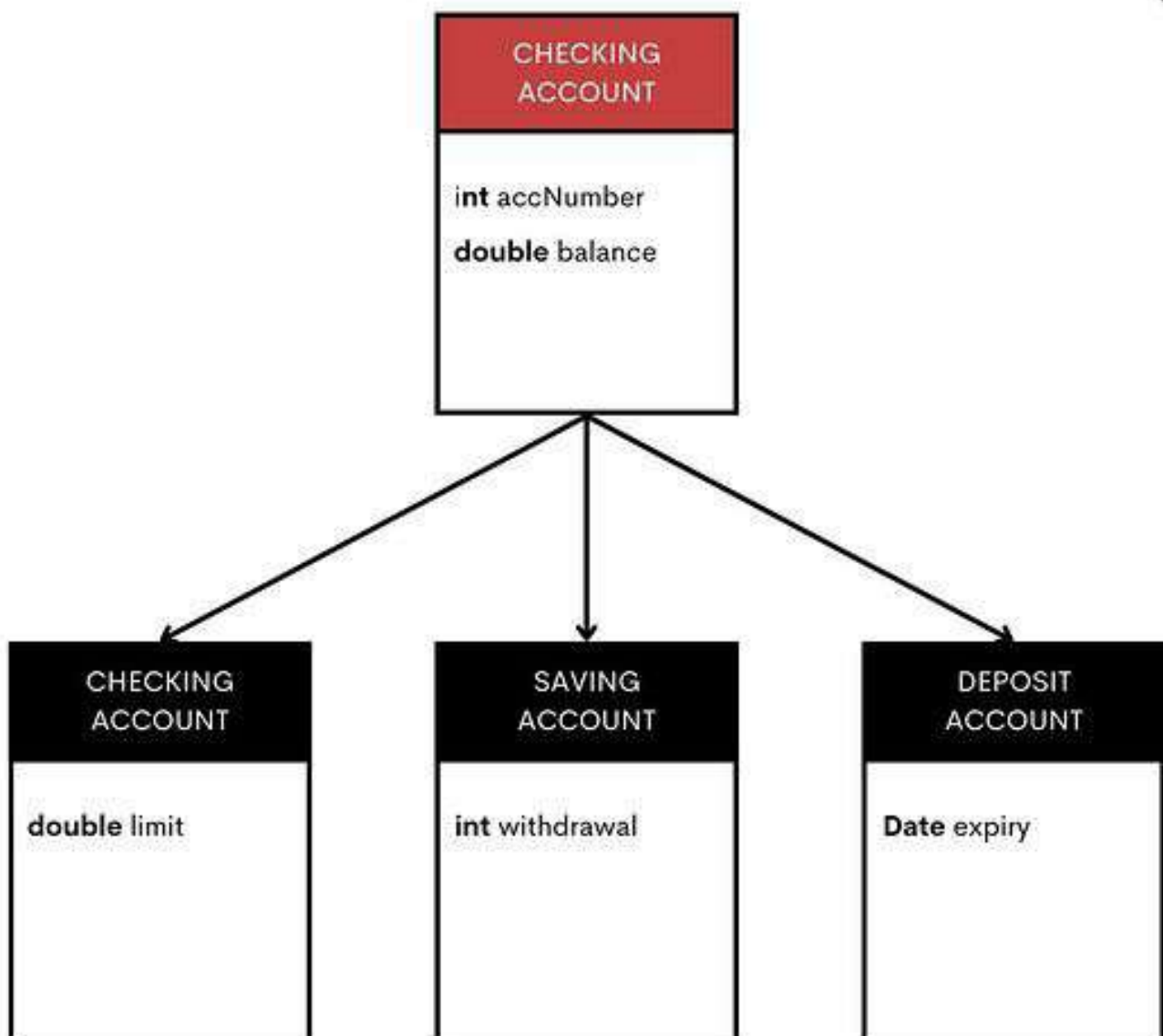
```
class Savings {  
    String accNumber;  
    double balance;  
    int bankCode  
    int withdrwal;  
}
```

Savings.java

```
class Deposit {  
    String accNumber;  
    double balance;  
    int bankCode  
    Date expiry;  
}
```

Depoite.java

Now suppose you want to include **bankCode** for example then we have to change it in all three classes, it might not seem too much here, but in a production sized java project this simple change could be a nightmare



So to solve this problem we use inheritance in java, we can create a base class called `BankAccount` which will have all the common fields and methods, and then we can create child classes on top of that which will have only the unique property and methods