

Four ways

- Default throw and default catch
- Default throw and our catch
- Our throw and default catch
- Our throw and our catch



Explicit throw

- ❑ A program can explicitly throw an exception using the throw statement besides the implicit exception thrown.
- ❑ Syntax:
 - `throw <throwableInstance>;`



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- ❑ `throw <throwableInstance>;`
- ❑ The Exception reference must be of type Throwable class or one of its subclasses
- ❑ A detail message can be passed to the constructor when the exception object is created.



Our throw and default catch

```
class Example{  
    public static void main(String[] args){  
        int balance=5000;  
        int withdrawAmount=3000;  
  
        if(balance < withdrawAmount)  
            throw ArithmeticException("Insufficient balance");  
  
        balance=balance-withdrawAmount;  
        System.out.println("Transaction Successfully completed");  
        System.out.println("Program continue...");  
    }  
}
```



```
Example.java
1 class Example{
2     public static void main(String[] args){
3         int balance=5000;
4         int withdrawlAmount=6000;
5         try
6         {
7             if(balance < withdrawlAmount)
8                 throw new ArithmeticException("Insufficient balance");
9             balance=balance-withdrawlAmount;
10            System.out.println("Transaction Successfully completed");
11        }
12        catch(ArithmeticException e)
13        {
14            System.out.println("Exception: "+e.getMessage());
15        }
16        System.out.println("Program continue...");
17    }
18 }
19
20
```

One question

- ❑ Why should we throw an exception object?
 - Because we want to set a different message
 - Because java cannot recognize exceptional situation of business logic

