

Mainstream Java

Throwing Exceptions

Throw Exceptions for Problems

- Code encounters problem? throw exception
 - Have seen before

```
public String wordAt(int index) {  
    if (index < 0 || index >= myWords.length) {  
        throw new IndexOutOfBoundsException("bad index "+index);  
    }  
    return myWords[index];  
}  
  
public int length(){  
    return myWords.length;  
}
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So What Can You Throw?

- Technically: any class that extends Throwable
 - Typically, a class that extends Exception
 - (Exception extends Throwable)
- Java has many built-in exceptions
 - `ArrayIndexOutOfBoundsException`
 - `StringIndexOutOfBoundsException`
 - `NullPointerException`
 - `IOException`
 -

You Can Create Your Own

- Java's exceptions: generally sufficient
- Need something else?
 - You can make your own class!
 - Just extend appropriate exception class