Computer Science 227
Introduction to Programming

Iowa State University

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Recap

- Class String
- Methods: length, substring, charAt, indexOf
- Methods have parameters
- Methods have type
int x = 5;
x = 6;

- Type of x is int.
- 5 is a specific instance of type int
- 6 is a specific instance of type int
- int—abstract; 5—concrete
Classes and Objects

```java
String text = "Welcome to Java Programming";
```

- **String** is a **class** (type).
- Create a memory location named **text**
- Create an **object** with data “Welcome to Java Programming”
- Address of the object is stored in **text**
- **text** is **pointing** to the object
- “Welcome to Java Programming” is a specific instance of class (type) **String**.
- “Welcome to Java Programming” is an **object** of the class **String**
Look at the object pointed by `text`, perform the method `length`

```java
int len = text.length();
```

- “Hi” is a specific instance of class `String`
- “Hi” is an object of class `String`
- Go to the object pointed by `message`, perform the method `length`
- Class—abstract; object—concrete