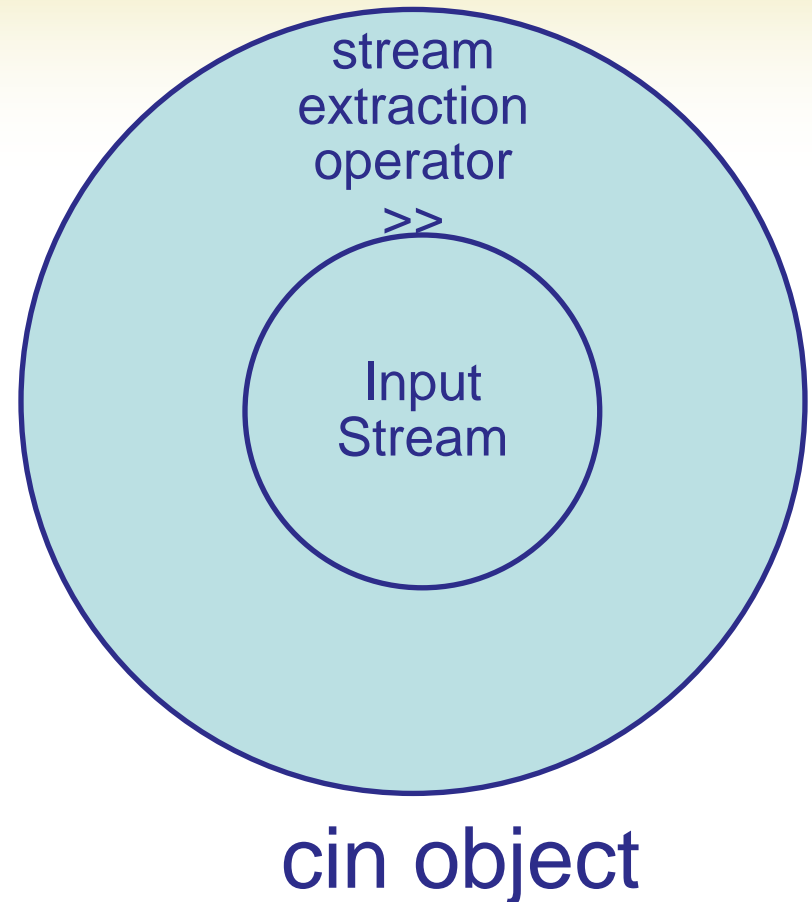


Chapter 3 Objects

The `cin` Object

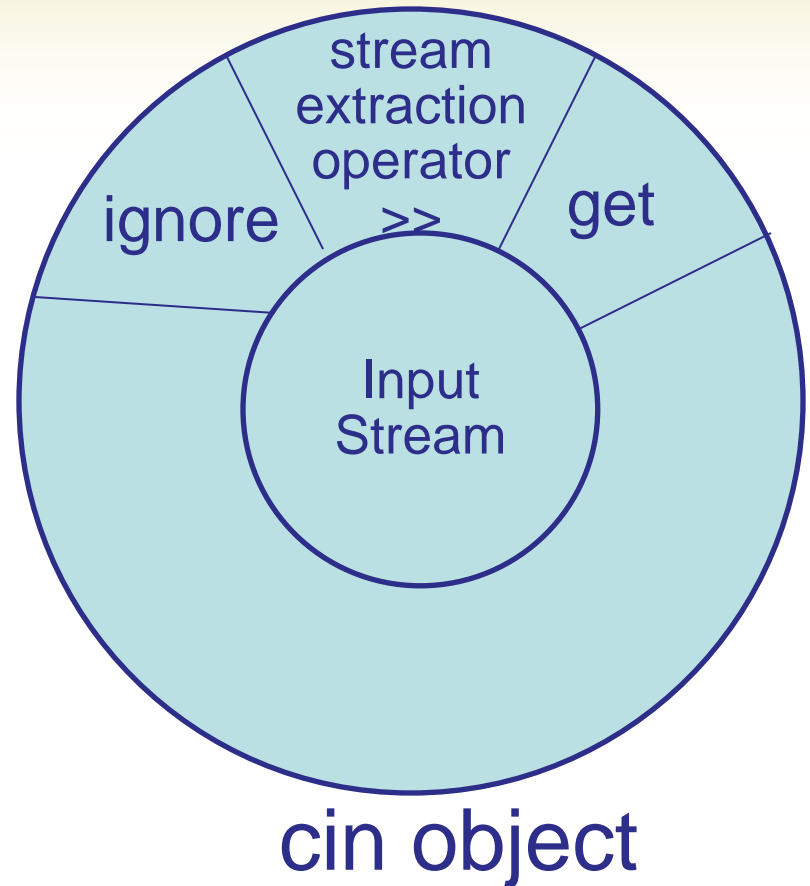
- `cin` is an object instantiated from the `istream` class
- `iostream` header file
 - contains `istream` class declaration
 - contains variable declaration for `cin`

```
istream cin;
```
 - instantiates `cin` object



The `cin` Object

- `istream` class contains function declarations for reading characters
 - `ignore()`
 - `get()`
- Function calls use the following format
 - *objectName.functionName()*
`cin.ignore();`
`cin.get();`



The `string` Object

- Function calls use the following format

objectName.functionName()

- Example

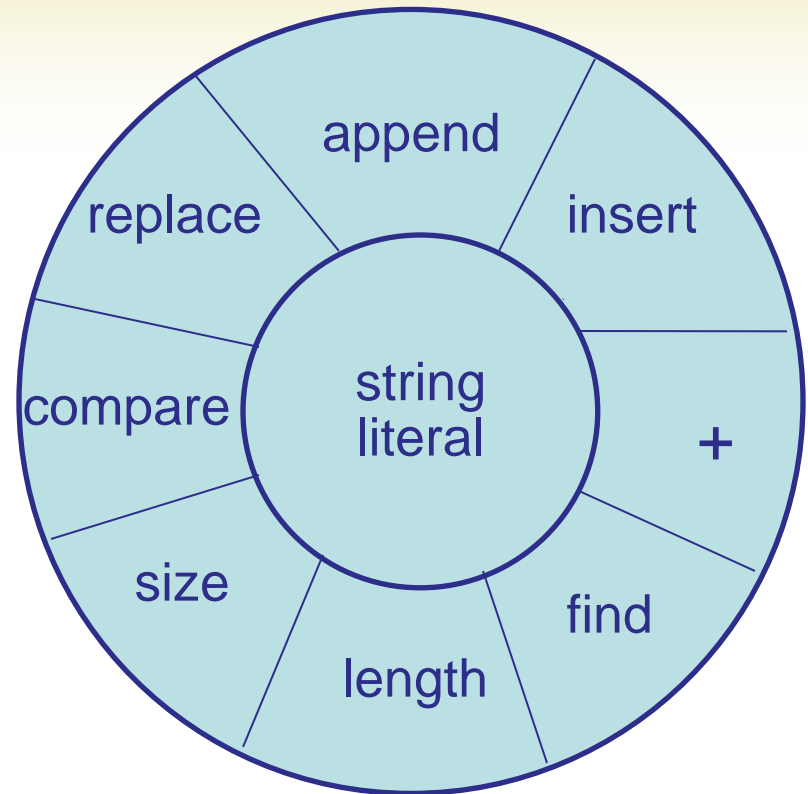
```
string name = "Bob";  
string city = "Matthews";
```

```
name.length(); //returns 3
```

↑ ↑
objectName functionName

↓ ↓

```
city.length(); //returns 8
```



string object

Function Calls

Object Member Functions

- Data and functions are together in object.
- Every object created from the same class has the same functions.
- Call must always include the name of the object to specify what data is being accessed/modified.
- Example:

```
int size=city.length() ;
```

Procedural Functions

- Data is separate from functions.
- Only name of function is needed to call functions.
- Example:

```
double root = sqrt(4) ;
```