

## A Time Class

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### Purpose:

To be able to create a basic class and manipulate objects in that class.

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### Due Date:

The completed lab assignment is due Friday 2008-03-14 *at the beginning of lecture*.

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### A Time Class

Write a simple Time class modelled after the Date class discussed in lectures.

- In particular, a Time should have methods called `setHour`, `setMinute`, and `setSecond` that set the various components of a Time object. These should ensure that the resulting time is legitimate.
- It should also have `getHour`, `getMinute`, and `getSecond` methods that return the corresponding value from the object.
- Add a methods that looks like

```
public String toString() { ... }
```

that produces a string like "22:03:12" from a date.

- Add a methods that looks like

```
public boolean equals(Time another) { ... }
```

that compares two times to see if they have the same value.

- Add a methods that looks like

```
public void advanceBy(int seconds) { ... }
```

that changes the time by a given number of seconds.

⇒ Write a test class that uses the various methods of the Time class to show that they work.

⇒ Write a question asking program that asks the user for a time and for a number of seconds to add, then writes a message like

```
Advancing 134 seconds from 12:03:15 gives 12:05:29.
```