

## Exercise: ConfigDB

Many applications need to store and retrieve configuration data of varying types. In this exercise, you will develop a class that simplifies the very common task of *reading* from a configuration database (writing will be left as an exercise for self-study).

### 1. The Database

The database will be a simple plain ASCII text file structured as in the following example:

```
# this is a comment line
AGE = 42
NAME = "Harry Lime"
```

### 2. Class Definition

Your class should have the following signature:

```
Class ConfigDB
{
    public ConfigDB (String DBFilename);
    public String str (String key) throws Exception;
    public Double dbl (String key) throws Exception;
}
```

### 3. Test Harness

Here is an example test class. You might like to copy this to test your own ConfigDB class:

```
// UseConfigDB.java
import java.io.*;

public class UseConfigDB
{
    public static void main (String [] args)
    {
        int ret = 0;
        String configFileName = "";

        try
        {
            ConfigDB cdb = new ConfigDB (configFileName = args [0]);

            System.out.print ("Name: " + cdb.str ("NAME"));
            System.out.println (" age: " + cdb.dbl ("AGE"));
        }

        catch (final ArrayIndexOutOfBoundsException aiobe)
        {
            System.err.println ("usage: java UseConfigDB file"); ret = 1;
        }

        catch (final FileNotFoundException fnfe)
        {
            System.err.println ("Could not open: " + configFileName); ret = 2;
        }

        catch (final Exception e)
        {
            System.err.println (e); ret = 3;
        }

        System.exit (ret);
    }
}
```

### 4. Hint

The ConfigDB class is most easily programmed using the File, FileReader and StreamTokenizer classes from the java.io package.