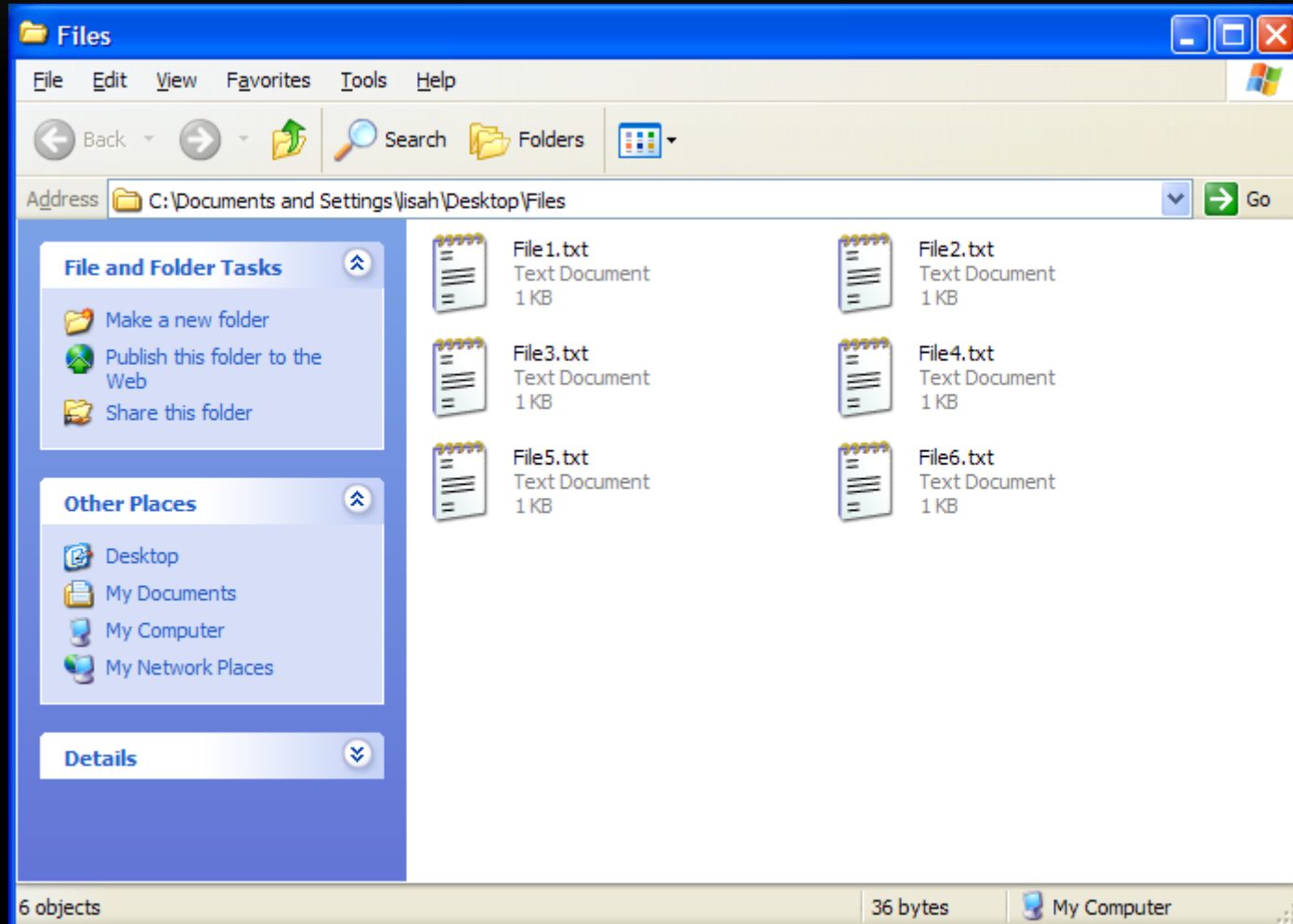


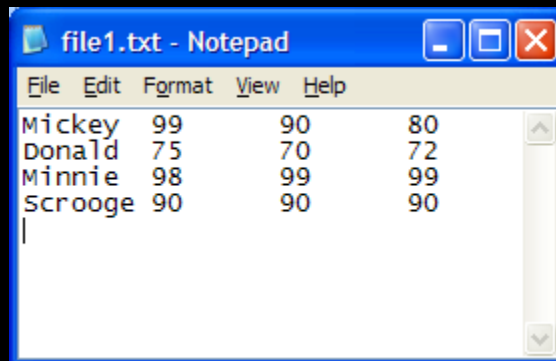
CHAPTER 11

Files

WORKING WITH TEXT FILES



ACCESS A TEXT FILE



OPEN THE FILE

- *file_variable* = *open(filename, mode)*
- mode
 - read: use 'r'
 - write: use 'w'
 - append: use 'a'

Example:

```
infile = open('my_file.txt', 'r')
```

```
outfile = open('results.txt', 'w')
```



CLOSE THE FILE



Example:
`file_variable.close()`

READING FROM A FILE

- All functions are called by using the file_variable followed by a period and then the function name
- Functions
 - read(): Reads entire contents of file
 - readline(): Reads the next line of a file
- A string is returned from both functions

Example

```
contents = infile.read()
```

USING A WHILE LOOP

- The `readline()` function returns an empty string when it reaches the end of the file

Example:

```
line = infile.readline()
```

```
while line != '':
```

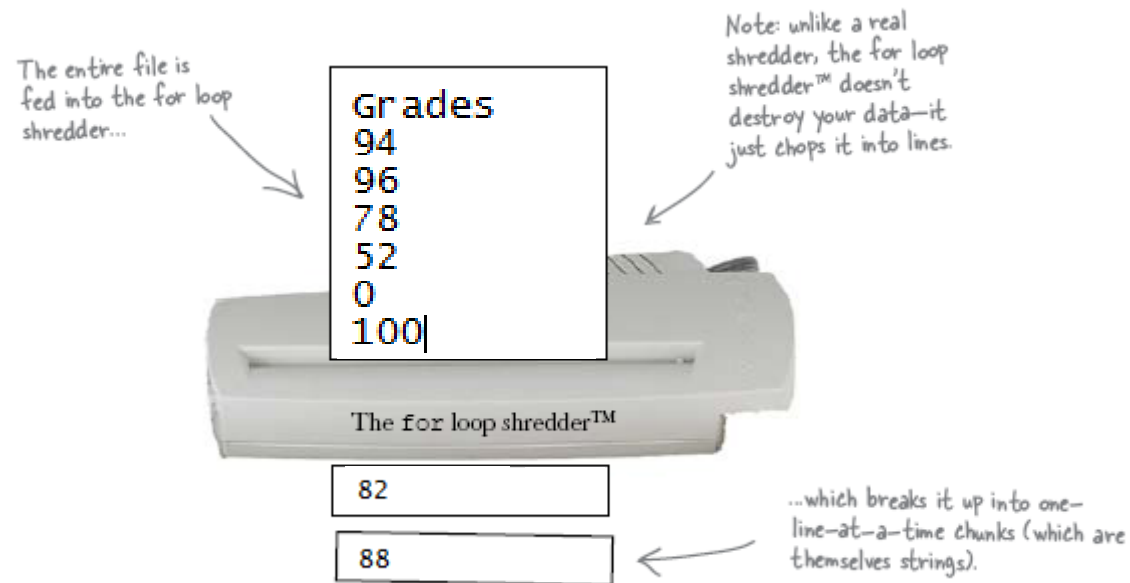
```
    print(line)
```

```
    line = infile.readline()
```

CLASS EXERCISE

- Create a file that has the following 3 numbers in it:
 - 90
 - 80
 - 70
- Write a program that reads in the three values and prints to the screen the corresponding letter grade

FOR LOOP: CHOPS FILE INTO LINES

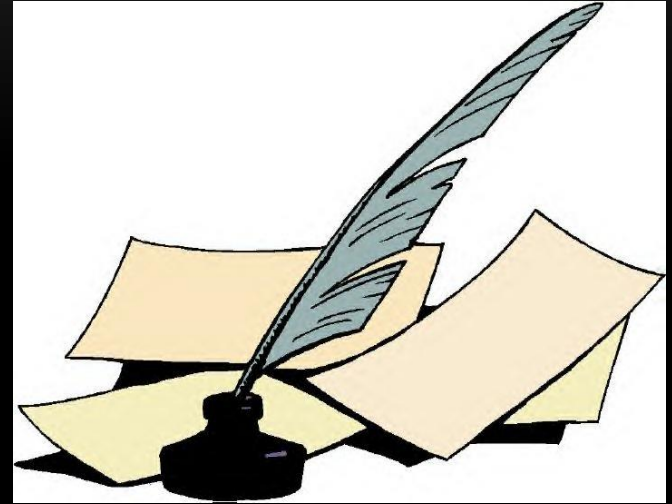


CLASS EXERCISE

- Create a file that has the following 3 numbers in it:
 - 90
 - 80
 - 70
- Re-write your program that reads in the three values so that it uses a for loop instead of a while loop

WRITING TO FILES

- Use the 'w' mode
- Be sure to add the '\n' character if you want a new line
- write() is the function name for writing to a file



Example:

```
outfile.write("A string or string variable" + '\n')
```

CLASS EXERCISE

- Modify your previous program so that it prints the corresponding letter grade to a file named `final_grades.txt`