**Projects for Chapter 07**

## Project 7-1: Wizard Inventory

Create a program that keeps track of the items that a wizard can carry.

## Console

The Wizard Inventory program

COMMAND MENU

walk - Walk down the path

show - Show all items

drop - Drop an item

exit - Exit program

Command: walk

While walking down a path, you see a scroll of uncursing.

Do you want to grab it? (y/n): y

You picked up a scroll of uncursing.

Command: walk

While walking down a path, you see an unknown potion.

Do you want to grab it? (y/n): y

You can't carry any more items. Drop something first.

Command: show

1. a wooden staff

2. a scroll of invisibility

3. a crossbow

4. a scroll of uncursing

Command: drop

Number: 3

You dropped a crossbow.

Command: exit

Bye!

## Specifications

* Store a list of all possible items that a wizard can carry in a file. When the user selects the walk command, read these items from the file, randomly pick one, and give the user the option to grab it.
* Store the current items that the wizard is carrying in another file. Make sure to update this file every time the user grabs or drops an item.
* The wizard can only carry four items at a time.
* For the drop command, display an error message if the user enters an invalid number for the item.

## Project 7-2: Monthly Sales

Create a program that reads the sales for 12 months from a file and calculates the total yearly sales as well as the average monthly sales. In addition, this program should let the user edit the sales for any month.

## Console

Monthly Sales program

COMMAND MENU

monthly - View monthly sales

yearly - View yearly sumary

edit - Edit sales for a month

exit - Exit program

Command: monthly

Jan - 14317

Feb - 3903

Mar - 1073

Apr - 3463

May - 2429

Jun - 4324

Jul - 9762

Aug - 15578

Sep - 2437

Oct - 6735

Nov - 88

Dec - 2497

Command: yearly

Yearly total: 66606

Monthly average: 5550.5

Command: edit

Three-letter Month: Nov

Sales Amount: 8854

Sales amount for Nov was modified.

Command: exit

Bye!

## Specifications

* Use a CSV file to store the data for the program. This data should include the three-letter abbreviations for the names of the months as well as the integer amounts for the sales for each month.
* For the edit command, display an error message if the user doesn’t enter a valid three-letter abbreviation for the month.
* When the user edits the sales amount for a month, the data should be saved to the CSV file immediately. That way, no data is lost, even if the program crashes later.
* Round the results of the monthly average to a maximum of 2 decimal digits.

## Project 7-3: Email List Cleaner

Create a program that reads a CSV file that contains a list of prospects for an email list, reformats the data, and writes the cleaned list to another file.

## Console

Welcome to the Email List Cleaner

Source list: prospects.csv

Cleaned list: prospects\_clean.csv

Congratulations! Your list has been cleaned!

## The prospect.csv file

FIRST\_NAME,LAST\_NAME,EMAILjames,butt,jbutt@gmail.comJosephine ,Darakjy,josephine\_darakjy@darakjy.orgART,VENERE,ART@VENERE.ORG

...

## The prospect\_clean.csv file

James Butt,jbutt@gmail.com

Josephine,Darakjy,josephine\_darakjy@darakjy.org

Art,Venere,art@venere.org

...

### Specifications

* The program reads the file named prospects.csv, fixes some formatting problems with it, and writes a file named prospects\_clean.csv.
* All names should use title case. To convert a string to title case, you can call the title() method from the string.
* All email addresses should use lowercase. To convert a string to lowercase, you can call the lower() method from the string.
* All extra spaces should be removed. To do that, you can call the strip() method from the string.