**CS 451**

**Programming Assignment**

**Pet: Ruby**

Due Date To Be Determined

**Goal**

The goal of this assignment is to get acquainted with the programming language Ruby by creating a program that maintains a very simple database.

**Problem Statement:**

You want to keep track of your movie collection. Movies are added with their rating and their prices; these two values are integers. You only have to modify the two files provided: main.rb and store.rb

**Analysis:**

The database supports the following operations:

add adds a new movie

update updates the rating or price of a movie based on the user’s choice

display displays the entire database

remove removes a chosen movie

four does a special action based on a movie having a rating of 4

quit quits the program

**Design:**

There are many ways of accomplishing a task in Ruby (which makes it great 😊), so I will leave some of the control flow design up to you.

I do have some requirements:

* The database has to be a hash with an array [rating, price] as the value
* The keys of the hash need to be translated from a string to a symbol
* The program continues until the user enters ‘quit’
* When the user enters an operation, it is not case-sensitive, but movies have to be entered exactly how they were added
* You have to use a proc for the four operation. However, I leave it up to you for what you want the proc to do for the movies that have the rating of 4
* You cannot use for-loops

**What to hand in**

1. Email your Ruby code to adsantos@loyola.edu
2. A well-formatted 2-up printout of your source code. You may use:

a2ps -T 4 -q -Avirtual -2 -o ./src.ps ruby.rb

**Assignment Notes:**

1. To run your Ruby programs simply type ruby <progam.rb>
2. You can assume that the user input for the rating and prices are valid, i.e., I don’t require checks if the rating is > 4 or if the ratings and prices are less than 0 (otherwise invalid integers for ratings and prices)
3. Helpful links:
   1. https://www.codecademy.com/articles/glossary-ruby
   2. http://ruby-doc.com/docs/ProgrammingRuby/
   3. https://www.ruby-lang.org/en/
   4. http://rubylearning.com/satishtalim/tutorial.html
4. You could also reference ruby\_guide.rb that I have made as a quick cheatsheet.

**Example Run**

Personal Movie Store

What would you like to do?

-- Type 'add' to add a movie.

-- Type 'update' to update a movie.

-- Type 'display' to display all movies.

-- Type 'remove' to remove a movie.

-- Type 'four' for a surprise.

-- Type 'quit' to quit.

add

What movie do you want to add?

Snow White

What is the rating? (Type a number 0 to 4)

0

What is price do you want to sell it at? (Type an integer)

8

Snow White has been added with a rating of 0 and with a price of 8.

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add

What movie do you want to add?

Tangled

What is the rating? (Type a number 0 to 4)

3

What is price do you want to sell it at? (Type an integer)

10

Tangled has been added with a rating of 3 and with a price of 10.

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display

Snow White-> rating: 0 | price: 8

Tangled-> rating: 3 | price: 10

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update

What movie do you want to update?

Tangled

Did you want to change the rating or price?

rating

What's the new rating? (Type a number 0 to 4)

4

Tangled has been updated with the new rating of 4.

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add

What movie do you want to add?

Spongebob Movie

What is the rating? (Type a number 0 to 4)

4

What is price do you want to sell it at? (Type an integer)

15

Spongebob Movie has been added with a rating of 4 and with a price of 15.

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display

Snow White-> rating: 0 | price: 8

Tangled-> rating: 4 | price: 10

Spongebob Movie-> rating: 4 | price: 15

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four

Tangled is MINE!

Spongebob Movie is MINE!

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remove

What movie do you want to remove?

Snow White

Snow White has been removed.

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display

Tangled-> rating: 4 | price: 10

Spongebob Movie-> rating: 4 | price: 15

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exit

Sorry, I don't understand you.

-- Type 'add' to add a movie.

-- Type 'update' to update a movie.

-- Type 'display' to display all movies.

-- Type 'remove' to remove a movie.

-- Type 'four' for a surprise.

-- Type 'quit' to quit.

quit

Aww...bye bye!