

ITEC 2140
Project
Fall 2021
INDIVIDUAL EFFORT

Create a Java program that an author could use to track their hobbies. This program will be a multi-class program. You will be creating three classes in this assignment. A Hobby class, a HobbyUI class and a Reference class.

1. The first class is the Hobby class.
 - a. The Hobby class will have the following fields. These must be instance fields and they must be declared appropriately.
 - i. name – The name of the hobby
 - ii. category – The category of the hobby. Valid choices are Gaming, Fishing, Sewing, and Crafting
 - iii. A list of Reference objects
 - b. Methods
 - i. public boolean setName(String name) .
 1. This method will accept a String and set it into the name field. The name field cannot be blank.
 - ii. public String getName()
 1. This method will return the name.
 - iii. public boolean setCategory(String category)
 1. This method will set the category for the hobby. You must validate as above.
 - iv. public String getCategory()
 1. This method will return the category for the hobby.
 - v. public void addReference(Reference ref)
 1. This method allows the user to add a reference to the list of references for a Hobby.
 - vi. public String toString()
 1. Returns a String representation of the Hobby object. This should include all Reference objects contained in the list of references.
 - vii. Constructors
 1. No argument
 2. All arguments
2. The second class is your Reference class. This class will store information about the references for your Hobby.
 - a. Fields
 - i. Title – A String holding the title of the reference.
 - ii. Location – a String holding the location of this reference.
 - iii. Type – A String holding the type of reference. There are three valid types which must be declared and used as constants. These are Book, Magazine and the Internet.
 - b. Methods
 - i. getTitle()
 1. returns a String containing the title.
 - ii. setTitle(String title)

1. Takes a String containing the title and validates that it is not empty and if it is valid, stores it in the title variable in the Reference class.
- iii. setLocation(String location)
 1. Validates that location is not blank
- iv. getLocation()
 1. Returns the contents of the location variable
- v. setType(String type)
 1. Validates that it is a Book, Magazine or the Internet.
- vi. getType()
 1. Returns the content of the type field.
- vii. toString()
 1. Returns a well formatted String for the Reference object.
3. The last class is your user interface class, HobbyUI, allowing you to interact with your Hobby object. You should create a container to hold multiple hobbies and allow the user to enter hobbies until they elect to not enter another.

Sample output:

Enter the hobby name

Wood working

Please enter the category for Wood working. Gaming, Fishing, Sewing, Crafting

Crafting

Please enter the references for Wood working

Please enter the title for this reference (blank to exit)

Woodsmith

Please enter the type for Woodsmith

in

Please enter the type for Woodsmith

Internet

Please enter the location for Woodsmith

www.woodsmith.com

Do you have another reference? (Y/N)

y

Please enter the references for Wood working

Please enter the title for this reference (blank to exit)

Woodworker's Journal

Please enter the type for Woodworker's Journal

magazine

Please enter the location for Woodworker's Journal

bookshelf

Do you have another reference? (Y/N)

n

Enter the hobby name

Bass Fishing

Please enter the category for Bass Fishing. Gaming, Fishing, Sewing, Crafting

fishing

Please enter the references for Bass Fishing

Please enter the title for this reference (blank to exit)

BassMaster

Please enter the type for BassMaster

internet

Please enter the location for BassMaster

www.bassmaster.com

Do you have another reference? (Y/N)

y

Please enter the references for Bass Fishing

Please enter the title for this reference (blank to exit)

The History of Angling

Please enter the type for The History of Angling

Book

Please enter the location for The History of Angling

library

Do you have another reference? (Y/N)

y

Please enter the references for Bass Fishing

Please enter the title for this reference (blank to exit)

Outdoor Life

Please enter the type for Outdoor Life

Magazine

Please enter the location for Outdoor Life

table

Do you have another reference? (Y/N)

n

Enter the hobby name

Xboxing

Please enter the category for Xboxing. Gaming, Fishing, Sewing, Crafting

Gaming

Please enter the references for Xboxing

Please enter the title for this reference (blank to exit)

The Master Chief Collection

Please enter the type for The Master Chief Collection

internet

Please enter the location for The Master Chief Collection

game library

Do you have another reference? (Y/N)

n

Enter the hobby name

Hobby: name = Wood working, category = Crafting.

Title – Woodsmith Location - www.woodsmith.com Type - Internet

Title - Woodworker's Journal Location – bookshelf Type - Magazine

Hobby: name = Bass Fishing, category = fishing.

Title – BassMaster Location - www.bassmaster.com Type - Internet

Title - The History of Angling Location – library Type - Book

Title - Outdoor Life Location – table Type - Magazine

Hobby: name = Xboxing, category = Gaming.

Title - The Master Chief Collection Location - game library Type - Internet

Thank you for entering hobbies.

Rubric:

Hobby: 35 points

- Constructors – 5
- get and set name – 5
- get and set category – 10
- addReference – 5
- toString – 10

Reference – 25 points

- get and set title – 5
- get and set location – 5
- get and set type – 10
- toString – 5

HobbyUI - 35 points

- enterHobby – Correctly enter a Hobby to be entered into the ArrayList – 15
- getReference – Correctly enter a Reference and add them to the ArrayList of Reference in Hobby – 10
- print – Print the list of Hobbies – 5
- ArrayList Hobby – 5

All – 10 points

- Coding standards – 10