L1-Project Assignment

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Project Title – Java Data Structure –L1-Assignment

Proejct Type	Project Name/ID	Hosted By TG/Accco unt	Duration	Proejct Owner /Account
L2 Training	Java Data Structure –L1-Assignment	TopGear	5 PDs	NA

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About This Project

This is a L2 level training on advanced Java topics on Java Collection objects (Data Structure).

Who Is Eligible

All users who have either completed TopGear Core Java L1 training or experienced with OOPS and essential Core Java programming.

Pre-Requisites

1. User need to have experience in Object Oriented Programming Concepts (OOPS) and Core Java.
2. Should have completed Core Java L1 level training.
3. User is recommended to consult a TopGear mentor and clarify doubts/queries (if any) before joining the project.
4. Project to be submitted to TopGear project repository using GIT with appropriate documentation and packaged as guided by TopGear mentor.
5. Irrelevant submission will be barred from review and will be considered not completed, which will be re-opened with appropriate comments.

Scope of Work & Deliverables

1. Coding & Testing
2. Source files packaged as guided.
3. To understand executing and submission process of TopGear Training and Case study projects user can refer following documents on the portal:

https://topgear-app.wipro.com/sites/default/files/steps_to_execute_topgear_training_case_study_projects_v-1-2-1.pdf

Note: User is recommended to read this document thoroughly before starting with their respective TopGear project.

Technologies

This training uses Java programming language to explore and learn data structures.

Training Tasks

1. Task to find whether the Vector contain all List Elements (Objects) :

Find whether a vector contains list of objects or not, Create a Vector with elements “First”, “Second”, “Third” and “Random”. Check if it has Elements “First”,”Random”, then try to find if it has “One”,”Random”

```
import java.util.ArrayList;
```

```
import java.util.List;
import java.util.Vector;


public class MyElementCheck {


    public static void main(String a[]){
        //put your code here
    }
}
```

2. Task to copy elements from Vector to an Array :

Copy all elements of a vector object to an array. Create a Vector with elements "First", "Second", "Third" and "Random". Create an Array of String and copy all the elements of the Vector into an Array. Then print all the Elements of the Array.

```
import java.util.Vector;


public class MyVectorArrayCopy {


    public static void main(String a[]){
        Vector<String> vct = new Vector<String>();
        vct.add("First");
        vct.add("Second");
        vct.add("Third");
        vct.add("Random");
        System.out.println("Actual vector:"+vct);

    }
}
```

3. Task to learn LinkedList push(), pop() operations:

Create a LinkedList with elements, call push () and pop () methods on LinkedList objects "First", "Second", "Third" and "Random". Print the elements of the LinkedList then Push the Element "Zero", and then print the contents of the LinkedList. After this POP the Element, then print the contents of the LinkedList.

```
import java.util.LinkedList;


public class MyPushPopOpr {


    public static void main(String a[]){


        LinkedList<String> arrl = new LinkedList<String>();
        arrl.add("First");
        arrl.add("Second");
        arrl.add("Third");
        arrl.add("Random");
        System.out.println(arrl);
```

```
        // write code to Push and pop

    }
}
```

Environment

To execute this training project user can use own desktop/laptop set with essential Java development environment (need GitBash tool) or can use TopGear provided VDI (Spring SOA Hibernate) which is configured for Java and Java EE development.

Completion Criteria

- Employee should complete the project within timeline provided.
- In cased user has not follows appropriate steps or job is partly finished, then project can be reopened/reverted back.
- Employee must follow all rules and task as instructed to avoid rejection/reopening of projects.
- Once the project is closed successfully after submission and review, user will earn # reward points and the user will visible to appropriates practices and accounts.
- If the user has completed a Use case, project or Solution project, he/she must update his/her Wipro profile add the project details he worked.
- User should update efforts against TopGear projects in time sheet.

Assumptions

Users joining this program have knowledge/understanding of OOPS concepts, Data Structures and Core Java programming.

Project Submission Guidelines

- Login https://topgear.wipro.com
- Go to Java-J2EE → Java→Training Tab
- Join Java Data Structure –L1-Assignment project.
- Practice on assignment as per project specification.
- Once complete the project work, submit/check-in the same as instructed to TopGear GitLab.
- User can refer following document to understand execution and submission procedure of TopGear training and case study projects

https://topgear-app.wipro.com/sites/default/files/steps_to_execute_topgear_training_case_study_projects_v-1-2-1.pdf

References

- http://www.java-examples.com/java-collections-and-data-structures-(-java.util-package-)
- http://www.vogella.com/tutorials/JavaCollections/article.html