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Course Code: MCA-109

Course Name: Java Programming

Assignment 2

(Based on Unit-III)

Q 1. An Employee HashSet maintains 5 objects of class Employee. The class has following members:

- (a) Empno: String
- (b) Department: String
- (c) Basic: int
- (d) HRA_Percent: int
- (e) DA_Percent: int
- (f) PF_Percent: int

Construct the logic for sorting and segregating the objects on the basis of Department field. Print the sorted result department wise in the following format:

Department: -----

EMPNO	BASIC	HRA	DA	PF	NET_SALARY
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Department Average: -----

- Q 2. Create the xml configurator file storing user login credentials and database credentials. Parse this file into java code using DOM parser/SAX Parser. Create **Properties** in java using these configurations. Retrieve all config values using properties methods.
- Q 3. Utilize AWT /Swings framework in Java to develop a **Contact Manager**. The GUI application maintains a simple list of contacts storing contact name and number. It provides basic features of CRUD(Create, Update, Retrieve and Delete) as per user choice. The application also supports search feature.
- Q 4. Emulate your DALWrapper code in a **Singleton Class** making one database instance per application run. Extend the concept to implement **Double Entry Check Locking**

into your code.

- Q 5. Elaborate the **JDBC architecture** in detail. Differentiate between 1-Tier and 2-Tier architecture of the same. Explain the different drivers available in Java.
- Q 6. Illustrate the **Delegation Event Model** of Event Handling that is to be used with AWT and Java Swings. Compare the model in both scenarios.
- Q 7. Estimate does java implement the concept of **Object Persistence**? What were the prime motivations for **Serialization**. How does **Serializable Interface** differ from **Externalizable Interface**.