COURSE TITLE   :   **APPLICATION DEVELOPMENT USING JAVA**
COURSE CODE   :   **4136**
COURSE CATEGORY   :   **A**
PERIODS/WEEK   :   **5 Days**
PERIODS/SEMESTER   :   **35**
CREDITS   :   **5**

Software Requirement: Java with GUI
General Outcomes:

To develop a menu driven, GUI based user friendly database application using Java

Specific Outcomes:

To Understand Fundamentals of GUI Programming
1.1.   Familiarisation with an IDE (such as Eclipse / net beans / qt)
1.2.   Use of Controls such as buttons, text filed, text area, check box, radio buttons, lists, scroll bar, list box, combo box etc
1.3.   Concept of Event Handling
1.4.   Develop simple programs using the above controls.

To explore the features of Advanced GUI Programming
2.1   Develop menu driven programs - menus, menu bar, menu items, main menu
2.2   Implement Dialog boxes in programs
[Note : At the end this module, students shall design and develop the user interfaces, menus for their application]

To Implement Database Connectivity
3.1   Implement database integration in applications - store, retrieve, modify databases from applications.
3.2   Implementation of database operations with necessary programming structures
[Note : At the end this module, students shall design the database for their application and incorporate necessary database operations]

To Generate Reports
4.1   Implementation of general application features such search, reports, backup etc
4.2   Create report
4.3   Converting reports to other format such as PDF
4.4   Implement backup & restore facility
4.5   Create executable programs
[Note : At the end this module, students shall develop a complete database based application.]

<u>**Instructions :**</u>

A simple application may be developed in any one of the domains such as Banking, Electricity Billing, Library management, Payroll, Insurance, Inventory, Health care etc. Application should developed by using an IDE (such as eclipse, net beans, qt etc).

Programming language JAVA must be used.

The course content given above is a general outline. The contents may be rearranged in tune with IDE/ Programming language/ Database selected for this lab without losing the course objective.

The lab record should contain all interim programs developed by the student during the development of the main application. The main application should be the last experiment.

Before the end of semester, the student should develop a complete GUI based database application incorporating the features listed in the exercises above. In end semester examination the students will be evaluated based on the features listed above. Also the students have to demonstrate the database application software developed by them as part of the evaluation.