BSE3203 Object Oriented Programming (4CU)

Course Objective; In this course, students will learn: (i) Object oriented design and software development by performing and discussing OO design for re-use of general purpose applications and small Java applets; (ii) Demonstrate correct use of the basic Java features in a working program: objects, classes, methods, IO handling, decisions and iterations; (iii) Demonstrate correct use of the following advanced Java features in a working program: in heritance, encapsulation, over loading, polymorphism, abstract classes and interfaces; and (iv) Demonstrate knowledge of GUI-based event-driven programming in a working program assignment utilizing Java GUI components, event- listeners and event-handlers.

Content: Topics include the Java API and Abstract Windowing Tool it. Other topics covered include the use of Java as an object-oriented programming language including encapsulation, simple inheritance, and polymorphism; design of Java classes using Java interfaces and packages; implement design patterns in working Java code, and demonstrate use of Java Base Classes, including AWT. Java foundation classes including Swing and Java Beans will be discussed briefly, along with the selection and application of current design and development tools.

References

•John Hubbard, Programming in C++ Mc Graw Hill Schaum’s Outline Series, 2000.

•Y. Daniel Liang, Introduction to Programming with C++ (Brief Version), Prentice Hall, 2007.

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