Sukkur IBA

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Object Oriented Programming (JAVA)

Lecture 1 & 2

General Introduction

- Basics of Computer Programming

- Course Outlines

- Recommendations and references

- Sources

- Elements of Evaluation

  - Assignments/Class Exercises – 10

  - Weekly Quizzes - 10

  - Mid-term Exam - 40

  - Final Exam - 40

Introduction to course

- Why to program?

- Why Program in Object Oriented Language?

- Why to Program with JAVA?

- What are the objectives of Course?

- What is final outcome of Course?

Contents

- **Procedural vs. Object Oriented Programming**

- **History of Programing Languages**

- **History of JAVA**

- **Buzzwords**

- **Resources**

- **Writing First Hello World**

- **How to Compile**

- **How to Run**

- **Review**

I hear I forget
I see and I remember
I do and I understood

Chinese Proverb

Procedural vs. OOP

Procedural Programming (PP):

- A series of conceptual steps
- Step by step approach to achieve desired output
- Focus: Break down to programming task into variables, methods, data structures.
- A minor change in any part may become a bigger modification in whole the code
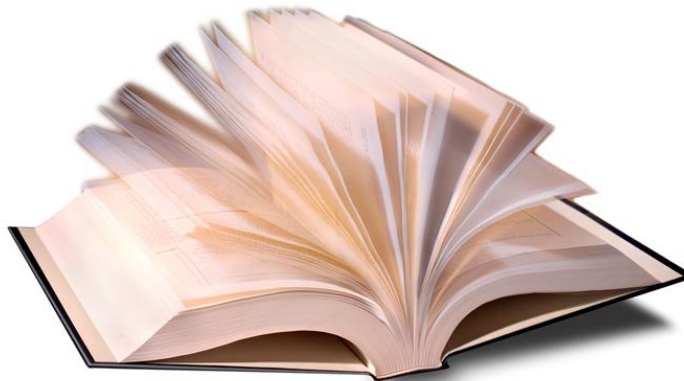
Object Oriented Programming (OOP)

- A collection of interacting objects
- Objects act individually but used collectively to achieve desired output
- Focus: Breakdown to programming task into Objects.
- Change in any part would not affect other code

Why OOP? Examples

If we have Thousand or Millions of LOCs, Then?

History of Programming Languages

- FORTRON: Good for Scientific Applications not good for system code

- BASIC: Easy, not v. powerful, lack of structure, not efficient with large programs

- ASSEMBLY: Efficient, not very easy, difficult to debug.

- C: Procedural

- C++: Very popular, Object Oriented

Why JAVA?

- Why Java if C++ is there?
  - Pointers
  - Destructors
  - Networking

History of JAVA

○ 1990s' a funded team **Project Green** by sun worked on next age technology.

○ Need of an application (Distributed, Heterogeneous and Huge)

○ Oak as first name of Java

○ In 1995 James Gosling

○ Popularity of Internet in 1995 was the reason behind the popularity of Java

○ Todays' Java:

○ Enterprise applications, Mobile Devices, Mars probes

Questions?

Thanks…