

Esc101N

Fundamentals of

Computing

Concluding Lecture

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Fundamentals of Computing

- Computing: includes a lot of domains
- In this course:
 - We have learnt the fundamentals
 - Using Java as a tool
 - Several aspects are more generic than Java
- Measure of success:
 - Ability to write basic programs in Java
 - Ability to pick up other languages easily

Language Features

- Variables, expressions
 - Primitive types, arrays, complex types
- Methods/functions/procedures
- Control (if-then-else, while, for)
- Recursion
- Input/output: text, gui, files
- Object oriented language:
 - Classes and objects
- Java specific:
 - Interfaces, inheritance, exceptions

Language Independent

- Data structures:
 - Array, List, Hashtable, Vector
- Algorithms:
 - Sorting, prime numbers, Gauss elimination, Newton-Raphson, regula-falsi
- Complexity, order notation