Prepare Knowledge and Skills

Overview

Summary of knowledge, skills, and technology that FU students need to prepare before taking the Entry Test and interning at Fsoft Academy.

I. Programming Language

1. Topics reference:

- Basic: Data types, Operators, keywords, expressions, statements, …
- Syntax: block, function, conditions, loops…
- Common libraries/collection: Math, Array, String…

2. Courses reference:

- https://www.w3schools.com/java/
- https://www.javatpoint.com/java-tutorial
- https://www.w3schools.com/cs/index.php
- https://codelearn.io/learning/csharp-fundamentals
- https://codelearn.io/learning/java-fundamentals
- https://codelearn.io/learning/cpp-for-beginners

3. Practice:

- https://leetcode.com/problemset/all/
- https://www.hackerrank.com/dashboard
- https://codelearn.io/training

II. Object Oriented Programming

1. Topics reference

- OOP Basic: class, object, 4 characteristics
- Access modifier, getter, setter
- Overloading, Overriding

- abstract class, interface
- Common collection: list, hash, set, dictionary, ...

2. Courses reference

- https://www.w3schools.com/java/
- https://www.javatpoint.com/java-tutorial
- https://www.w3schools.com/cs/index.php
- https://www.javatpoint.com/java-oops-concepts

III. <u>SQL</u>

1. Topics reference

- Relational database
- Modelling
- DDL statements: CREATE, ALTER, DROP
- DML statements: INSERT, UPDATE, DELETE, SELECT
- SELECT options
- Sorting and Grouping
- SQL Functions
- SQL JOIN

2. Courses reference

- https://codelearn.io/learning/introduction-to-sql
- https://www.w3schools.com/sql/default.asp
- https://www.udemy.com/course/sql-for-beginners-course/

IV. <u>Web Front-End</u>

1. Topics reference

- Basic HTML, tag and element
- Can create html pages by using correct tag
- Use heading tags and semantic tags correctly
- Know how to use CSS, edit CSS according to screen
- Know how to use selectors correctly
- Can write Javascript code according to programming language topics
- Know how to use Javascript to manipulate the DOM
- Can use jQuery, Bootstrap

2. Courses reference

- https://www.w3schools.com/html/default.asp

- https://www.w3schools.com/css/default.asp

- https://www.w3schools.com/js/default.asp

- https://www.w3schools.com/jquery/default.asp

- https://www.w3schools.com/bootstrap/bootstrap_ver.asp

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