August 21, 2024

Morning Session by Aditya Kansana,

Resources for programming

1. stackoverflow for errors
2. javatpoint and geeksforgeeks
3. medium.com
4. baeldung
5. official documentations of language

install notepad++

notion.so

swot analysis: Strength, Weakness, Opportunities, Threats, Actions to be taken.

Strength:

Fast Learner

Adaptable to new environment and schedules

Prior Knowledge of programming concepts

Prior Interview experiences

Weakness:

Low exposure towards java and .net

A year gap after graduation

No CS/IT Background

Weak Vocabulary in English for Aptitudes

Low overall connections in IT industry

Opportunities:

To build good connections

To develop strong programming background

To attend various coding contests, labs and tutorials

To enhance and update current skills

To develop a good communication skill

Threat:

Social Media Distraction

Falling behind the CDAC schedule

Competition for getting placed

Global Slowdown for hiring

Sumant Reddy\_KH\_SWOT

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Logic Building Session by Vipul Tembulwar,

History of Java

Most stable version – java 1.8

Initial name – oak

extentions - .java, .class…… .jar

Developed by Sun Microsystems

Taken over by oracle

WORA – write once run anywhere

Parts of java

1. Core Java
2. Adv Java
3. j2se: java 2 standered edition
4. j2ee: java 2 enterprise edition
5. j2me: java 2 micro edition

frameworks

1. spring
2. springboot
3. hibernate
4. jdbc
5. jsp
6. servlet

java features:

1. simple:

* pointers
* multiple inheritance

1. platform independent

* .class file

1. Compiled & interpreted
2. Object oriented programming
3. Secure Language
4. Dynamic Language – runtime memory allocation
5. High performance
6. Robust – Memory management for garbage collection
7. Multithreaded
8. Portable & distributed
9. Architectural neutral

Class

1. Instance variable
2. Static variable
3. Constructor
4. Methods
5. Instance block and static block

Variables

1. Local variables
2. Global variables
3. Primitive Datatypes
4. Non primitive datatypes

Data types:

1. byte – 1 byte [-128, 127]
2. short – 2 bytes [
3. int – 4 bytes
4. long – 8 bytes
5. float – 4 bytes
6. double – 8 bytes
7. char – 2 bytes
8. boolean – 1 bit (true/false) (No zero and one are allowed)
9. String – Non primitive (Class in java)

dataType Name; //declare

dataType Name1 = 10; //Initialise

1 bit

1 byte – 8 bit

1 kb – 1024 bytes

1 mb - 1024kb

Computer stores everything in binary format

Decimal to Binary: 10 = 1010

10 % 2 = 0 ^

5 % 2 = 1 |

2 % 2 = 0 |

1 % 2 = 1 |

0

//one’s compliment and two’s compliment

Tokens = Smallest individual part of program

Identifier = names given to class, methods, variables

Rules –

1. Start with character or \_ or $ only
2. Numbers are not allowed at start
3. Duplicates are not allowed
4. Case sensitive //Camel-Casing is used for variable naming and Pascal-Casing for Class
5. Keywords cannot be used //Classnames can be used for variable names
6. Constants should be written be in capital letters (MAX\_VALUE)

Java Statements-

1. If
2. If-else
3. If- else if - else
4. Switch

Switch(case){

case :

Statements;

Break;

}

Loops

1. for
2. while
3. do-while

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Doubts during the lab

What is null object or null in java.

How to define nested methods in java.

int num = 5;

int denom = 7;

double d = num / denom;