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Assignment No: -02

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8.1 What is difference between JDK, JRE & JVM &

+	JDK	JRE	JVM
	KI) JDK stands for Java Development Kit	LITTRE Stands for Java Runtime Environment	KITIVM Stands for Java Viroteral Machine
	(2) It is also called as 'superset of TRE'	Software tools Responsible for	Venifies and
The second second	\$ 5 PO	execution of Java Program.	execute byte- -code of Java source Gode.
-	43) JDK Contains all the tools required	< 8> TRE is composed of a Variety of	(b) It is specially
Name and Address of the Owner, where	For compile, debug 3	other Supporting	Responsible for converting bytecode to
-	developed using the java Platform.	features to get	machine level code and it is available
The second second	Jane 1 miles En		in both JDK ?

9.2 what is JIT compiler

- WIIT is stands for Just in Time Compiler.

(2) JIT compiler is a long Running, computer intensive program that provide bost Performance during Compilation of Program.

java code at compile or Runtime.

(4) JIT is an integral part of java virtual Machine

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	15) Advantages of JIT compiler are as follows:
	1) It reguires less Memory uggas.
33	1) The Code is optimized during run-time
0.5	3) The Code is optimized during runtime.
	a) It uses althement level of optimization heme effection
day	(6) Disadvartages of JIT compile are as follows:
	U It increases the Complexity of Program
	2) It uses lot of cache memory
183	3) The program with less line of rade does not take
	penetits of UII Compiler.
10	with substitut 346 Henrewood (18) Authoriting the Anna (2)
0.3	what is class loaders.
NO	- Dan Allegian - 20 militarity linguist with the
-	(1) The class loader is a Part of the Java Runtime
	Envisonment that dynamically loads Java classes into
9/10	Java Vistual Marnine
	(2) There are basically three types of mas loader.
	U DUDISTIAD CLASS LOADER (3) Extension Class loader
Ne.	(3) System Class Toade 8 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10
lemi)	187 There are basically three principles on which class
	loader works as follows:
30	1 Delegation Model 2 Visibility Principle
11/4	3 Uniqueness Property
7.159	when the trenthal are believed by the property
- 14	Bootstrap classloader
	Cloads classes from the /lip/atijas)
-	Extension class loader
-	loads classes from ire/lin/ext or java.ext dise
-	Application class loaders
-	(Loads class from classpath, -cpor-dosspath)
	(road con mon) constant day destant

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Explain Various Memory logical 0.4 * (i) A logical Partition is the div Memory and Storage into multi as that each set of resources independently with its own op & applications sustained (2) The number of logical Postition purpose such as database ope opposition or the Separate test <3> Each Partition can communicate as It other profition is in sec (4) The logical Partitions are o Purpose and are based on Re some our shoes who brench 2.5 what gives Java its "Wnite once naturely. To many onny alling KIN Java Applications are called Run Anywhere (WORA). This is feature of Java Applications (2) This means Proposa miner can develop a java-code on one system and can expect it to mun on any other java-enabled grytem without any adjustment 23> This process is done with the help of JVM. Java Program Java complex Byte code (class file) Linux Windows Macos

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(4) In Java, the Preogram is not converted into code directly understand by Handware nather it is convented to bytecode (class file) which is interpreted by JVM so once compiled it generates bytecode tile which can be own anywhere cany Machine) which has JVM 3 hence it gets the nature of write once and Runkrywhere 9.6 Explain History of Java ? who invented Java? -> 1) Java was developed by James Gosling who is known as father of Java -(2) Java is invented in 1991 by SunMicrosystem Just. 137 The principle of Java Programming was simple Robust Portable, secured and Platform independent (4) Initially, Java is known as Goren Team. This Green Team includes James Gosling, Mike Sheridan and Patrick Haughton. Embedded System - Greentalk James Gosling (Fother of town) like Set-up box

Meas(1995) Year(1991)

Q.7 What was oroiginal name of java ? why it was renamed ?

developed by small team of Engineers working for sunmicrosystems.

(2) They are called as 'Green Team'.

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due to fact that as part of another changed from oak to
of Java. (3) Postable Platform independent Interpreted stributed
core as follows n-Primitive (ver defino
→ Assray → class → interface → Stong

(8) The Oak home was menamed oak was Arready registered Trademark: K4) Hence, Further the name is of Javandal atthem of some to have some stand to been force 9.8 List the features of Java. The following are the features 4) Simple 1 (2) Object orniented (4) secured (5) Robust (6) (7) Anchitecture Neutral 18 <97 Multithread (10) Di Continue the braumon 9.9 List various data type in Javo The Various data Types in Javo Promitive (Inbuilt) Boolean Numeric Thegeral Character integer 0
[2 byte] | Byte -1 byte Float, Double (2 byte) -> Short-2byte

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10	What is difference between system. out. print
.10	System out pointly system out our print.
-	

	-		
*	system.out print	System.out.points	system err print
	· Superichite gate	and and the state of	at ska
	KI) The Control or	A) The Control or	(1) System. err. print()
	curser remains	Curser moves to	function print the
	on the Same line	the next line	errors message with
	after Pointing	after Prointing	red Colour
	2000	West and the second	DEREN OF THE PROPERTY.
	(2) compatible only	127 Is operable with	K2) It is mostly
	with Argument	all types Arguments	compatible with
	operations	The strike continue	

9.11 How is Java Platform independent.

-> <>> when you compile java Programs using javae compiler it generates bytecode.

12) We can execute the bytecode in Any platform which has JDK installed i.e Java Development Kit

K37 with the help of JVM which is Present in JDK the java bytecode is translated into Machine understandable code.

(4) Hence, Java is Platform independent but it is purely depended on JDK.

0.12 What is bytecode 9 How is it different for machine

Kij Byterade is a Sort of Component that is suited for

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Separat. Software travalation operation.

(2) It is commonly known as 'p-code' due to Probable that it provides.

(3) It is intermediate code compiled intalouter code from the Source code for efficient execution

by software interpretes

Java Program	Java -	Java Byte
(Source code)	Compiler	- Code

Machine Code

(1) It is an intermediate (1) It is a Compiler Program code designed to run on made up of the native a Virtual machine instead instructions associated with of a central Processing that Particular Computer. unit (CPU) (2) The function of bytecode (2) Machine code is the is to be a format that language which all Program can be executed efficiently must be converted into by Virtual machine's before they can be nonintempreter.

K3>It is Platform independent(3> It is not platform because it can be executed independent meaning it annot on any platform using Virtual be run on just any platform with machine the same operating system

Q-13 what is the difference between Rumable jar file &

	8	
	Jar File ?	SH DOL SHOWING
1	Jar file (1) who ado	Runnable jar file
	With the second of the second	A DVOLES REGION TO
	(1) Jar file is a java Application	usiz Runnable jar file albus
	which requires a command.	a use to run java classes
	live to run, a runnable	Without having to known class
	JAR file can be directly	names and type them in
	executed by double clicking	· Command prompt, reather
	Suppositive towards because	the user can just double click
	malaya to recombered	on the jar file and the
	and -releases at the arm which is	Program will Executable
-		poskut complain so
-	(2) A (Java Archive) JAR is	
308	a package file format	java classes to be loaded
- 29	typically used to aggregate many java class files	just like when a user
	many java class files	clicks on executable file.
17	associated metadata and	
	resources into one file to	
	distribute application software	
Litra		Atth out a toller sind !
	platform.	
	1607 22010	dto?
8.14	what is difference between	en Runnable jar file s
100.00	exertile 2 my addition born	
(del)	was not don wit to a line	
	Runnable jar file	exe file
-		ANN IN AND AND AND AND AND AND AND AND AND AN
	KY Java file like dead <17	exe tile are living thing which
	body which contain only instalction.	contain ivertouction which is madine
	leaves all 19: what advance Variations	port// Organies Silleries

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	Runnable j'ar file	exe file
250dl	of compiled java classes	java classes with main class
20012 30	How is a platform dependent language ?	
4.175	KIT c is a Portable programming language because it is not tied to any Handware of System.	
	Les we can say, it is a hardware independent language or platform independent language.	
logh	(3) That is why c is called iportable language! (4) C Program does not depend on actually but the executable file that is generated at the end for	
- 40	sunning the C-Program many depend on a Platform. 45) When you use a 05 you get other extension for	
	executable files. It sit was attained a studiotails	
9.16	what is the difference between path & class path &	
	Poth	Class Poth
	to set the path for all java Software tools like	Set the path for java Chasa

Let variable name: PATH (2) Variable name: Class path
Variable Value: C: Program Files Variable Value: C: Program Files Jan
Java Jak 1-70-211biz Jre 1.6:0 jre 1116 17t Jan

javac-exe java-exe javadocexe