

# **AAiT Learning Management System**

# t.me/dagmawi\_abate

### Quiz Navigation

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#### Question 1

Not yet answered Marked out of 1.00

Flag question

# time/dagmawi\_abate

Consider a relation schema R and a C R and ß C R. The functional dependency a ß holds on relational schema R if in any legal relation r(R), for all pairs of tuples t1 and t2 in r such that t1 [a] =t1 [a], and also t1 [ß] =t2 [ß]. This concept is called

#### Select one:

o a. Normalization

b. Decomposition

O c. Set Theory

d. Functional Dependency



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## Question 2

Not yet answered Marked out of 1.00

Flag question

Which one of the following principles of cyber security refers that the security mechanism must be as small and simple as possible?

Select one:

- O a. Fail-safe Defaults
- b. Least privilege
- c. Economy of the Mechanism
- Od. Open-Design



# **AAiT Learning Management System**

## Quiz Navigation

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49 50 51 52 53 54

55 56 57 58 59 60

## Question 3

Not yet answered

Marked out of 1.00

Flag question

Which of the following alternatives are most suitable for supporting a qualitative analysis of your software architecture?

#### Select one:

o a. team size

O b. organizational structures

c. Quality scenarios

O d. log files

## AAII Learning Management System

Question 4

Not yet answered Marked out of 1.00

Flag question

What is the maximum number of swaps that can be performed in the Selection Sort algorithm?

Select one:

- O a. n-2
- O b. n-1
- O C. 1
- d. n



# **AAiT Learning Management System**

# Vavigation

Question 5

Not yet answered

Marked out of 1.00

Flag question

Which of the following statements is NOT correct?

Select one:

- a. C++ is an object-oriented programming language;
- b. Java is an object-oriented programming language;
- O. the object-oriented approach does not separate the behavior of a system from the data;
- O d. Java is the only object-oriented programming language;

tion **6**et answered
d out of 1.00
ag question

Why is it important to maintain a good relationship between software testers and developers?

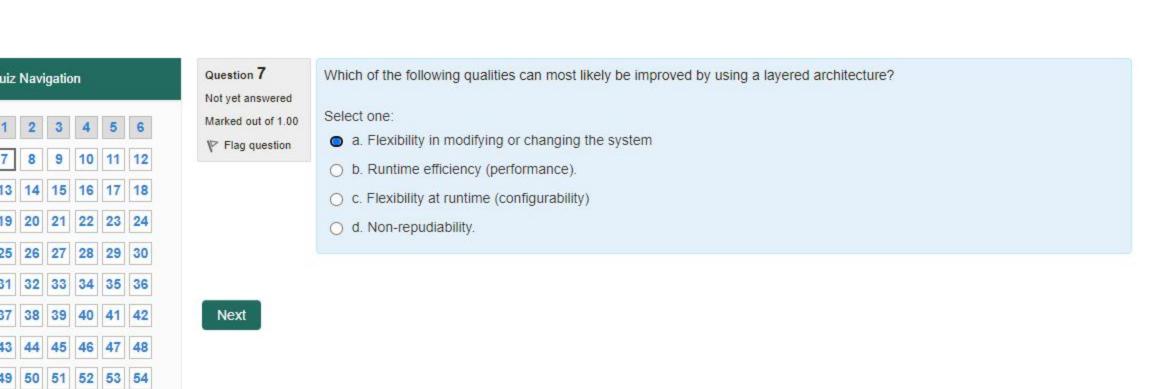
### Select one:

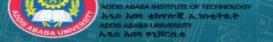
- o a. To ensure that the project is completed on time
- O b. To foster collaboration and communication between the two teams
- c. To make sure that the software is defect-free
- d. To reduce the cost of the project

xt

Which layer is responsible for wireless signal encoding and frequency band definition?
Select one:
a. Application Layer
b. Logical Link Control Layer
c. Medium Access Layer

d. None of the mentioned





# **AAiT Learning Management System**

Question 8

Not yet answered

Marked out of 1.00

P Flag question

The software requirement specification(SRS) is said to be \_\_\_\_\_if and only if no subset of individual requirements described in it conflict with each other

Select one:

- o a. consistent
- O b. verifiable
- c. unambiguous
- O d. correct

ed .00	Why is Software architecture so important?
on	Select one:
	a. Communication among stakeholders
	O b. Early Design decisions
	c. Transferable abstraction of a system
	O d. All of the above

0	Select one:
	a. By using the stopSelf() and stopService() method
	o b. By using the finish() method
	c. By using system.exit() method
	O d. None of the above

You try to analyze your architecture quantitatively. Which is the most appropriate indicators for architectural problem areas?

- a. Missing comments.
- b. Names of public methods do not reflect their purpose.
- c. Number of test cases per component.
- d. High coupling of components.

	Polymorphism means:
S	elect one:
	a. declaring all the methods of a class as public;
	D. declaring all the attributes of a class as private;
Ì	C. hiding of information so that it is not accessible to other classes;
	d. having methods or operators with the same name performing different functions;

ĺ	í	ľ	١	ı		
	1	۱	,			

What is the use of a content provider in Android?

- a. For storing the data in the database
- O b. For sharing the data between applications
- C. For sending the data from an application to another application
- d. None of the above

F(	or a Binary relationships set R between entity sets A and B, the can be associated	express the number of entities to which another entity
	Select one:	
	<ul><li>a. Cardinality Ration</li><li>b. Limited Ration</li></ul>	
	o c. Degree Ration	
	d. Participation Constraints	

Which one of the following pare of algorithms has equal cost in terms of time and space complexity under equal	
success function cost?	

o a. A\* and BFS

- O b. DFS and UCS
- o c. UCS and BFS
- Od. DFS and BFS

Which is the most important feature of	spiral model?
Select one:	
o a. performance management	
O b. efficiency management	
o c. risk management	
O d. Quality management	

17 swered	Which of the following is the main goal of software testing as part of the quality assurance process?	
t of 1.00	Select one:	
ies <mark>t</mark> ion	a. To monitor the software development lifecycle.	
	b. To control the cost of software development.	
	c. To ensure that the software meets the specified requirements	
	d. To manage project timelines and deadlines	

b. sub algorithm

c. travelsal algorithm

d. polish notation

	What is supervised learning in AI?
ı	
0	Select one:
ř.	<ul> <li>a. Reinforcing learning with a reward-based system</li> </ul>
	b. Learning by observing human behavior
	<ul> <li>c. Training a machine learning model with labeled data</li> </ul>
	<ul> <li>d. Training a machine learning model with unlabeled data</li> </ul>

ec

on

W	hich one of the following is not a function of operating system?
	Select one
	<ul> <li>a. Runs software utilities and program</li> </ul>

b. Translate high level programming language into machine code

O c. Manage computer system resources

d. Make the computer system convenient to use

Select on	ie:
<ul><li>a. po</li></ul>	ort .
O b. CF	RC
○ с. М <i>і</i>	AC
O d. IP	

ıat	is Inter process communication?
Se	lect one:
0	a. allows processes to communicate and synchronize their actions when using the same address space
0	b. allows processes to communicate and synchronize their actions without using the same address space

od. none of the above

O c. allows the processes to only synchronize their actions without communication

```
What will be the output of the following code snippet?
            function solve(arr, rotations) {
00
                   if (rotations == 0) return arr;
                  for(let i = 0; i < rotations; i++) {
                        let element = arr.pop();
                        arr.unshift(element);
                 return arr;
     Select one:
      a. [1, 22, 111, 44]
      o b. [111,44,1,22]
      O c. [22, 111, 44, 1]
```

n

O d. [44, 1, 22, 111]

If every requirement can be checked by a cost effective process, then SRS is called
Select one:
o a. complete
b. traceable
○ c. verifiable
O d. modifiable

ed	The purpose of foreign key is to identify a particular row of
.00	
on	
	Select one:
	a. Parent table and Child table
	b. Referenced table

O c. Child table

Od. All of the above

When a thread is running, it can return directly to the READY state by which of the following means?
Select one:
a. by encountering a yield command in a program;
a. by encountering a yield command in a program,
b. by encountering a sleep command in a program;
C. by encountering a wait command in a program;
O d. by becoming blocked as a result of an output device being unavailable;

Several architecture development methods suggest a view-based approach. Which of the following views are most often used
Select one:
o a. Context view
O b. Configuration view
c. Building Block/Component view
O d. Physical database view

a. Risk avoidance

- 0 4. 1401 4. 010410
- O b. Risk Retention
- C. Risk Reduction
- O d. Risk transfer

	ICMP is mostly employed for
0	Select one:
	a. IP addressing
	b. error and diagnostic functions
	oc. Data forwarding
	d. Network routing

Which one of the following "sentences" best describe	the current explosion of 1
Select one:	
<ul> <li>a. Too much knowledge and too much data</li> </ul>	
b. Too much data and too much opportunity	

c. Distributed knowledge and distributed data

d. too much data too little knowledge

	Which of the following is not a state in the service lifecycle?	
0	Select one:	
	a. Destroyed	
	O b. Running	
	○ c. Start	
	O d. Paused	

	An Attribute takes a	value when an entity does not have a value for it.
0		
	Select one:	
	a. Not Applicable	
	o b. Null	
	O C. 0	
	O d. Zero	

Which of the following sorting algorithms provide the best time complexity in the worst-case scenario?

○ a. merge sort

- a. merge so
- o b. selection sort
- c. quick sort
- d. bubble sort

Modifying the software to match changes in the ever changing environment is known as
Select one:
a. perfective maintenance
b. Adaptive maintenance
c. preventive maintenance
O d. corrective maintenance

	The safe and sound arrival of data is verified using in TCP in order to achieve reliable transport	
0		
	a. Acknowledgment	
	O b. Bits	
	o c. Buffer	
	O d. Frame	

During which activity in the fundamental test process are tests designed and executed?

## Select one:

- a. Test Analysis and Design
- b. Test Implementation and Execution
- c. Test Planning and Control
- d. Test Closure

whic	h data structure allows deleting data elements from front and inserting at rear?	
Sele	ct one:	
0	a. dequeues	
0	b. binary search tree	
0	c queues	

O d. stacks

What effect does achievement of quality attribute will have on software product?	
Select one:	
o a. The achievement of quality attribute will always have a negative effect	

d. The achievement of quality attribute will have a positive as well as negative effect

c. The achievement of quality attribute will always have a positive effect

b. It is non deterministic

What layer functions as the basis for dialog control and synchronization?
Select one:
a. Network Layer
○ b. Session Layer
c. Data Link Layer
O d. Transport Layer

What is the term used for a collection of large, complex data sets that cannot be processed using traditional data processing tools?
Select one:
O a. Wisdom
O b. Tiny data
c. Big data

O d. Information

ľ	A is the lowest level of work on the project.	
0	0	
	Select one:	
	a. work product	
	O b. Milestone	
	○ c. Task set	
	o d. Task	

e: ew Structure odel Structure	
ew Structure	
odel Structure	
chitectural Structure	
gical Structure	
	chitectural Structure ogical Structure

ed .00	
on	Select one:
	○ a. Star
	O b. Bus
	o c. Mesh
	○ d. Ring

hich of the following is not the contribution of the big data analysis	
elect one:	
a. To gain competitive advantage	
b. To control the volatile market	
) C. To satisfy customers need	

o d. None

What does the HTTP status code 201 indicate?	
Select one:	
o a. No content	
○ b. Accepted	
○ c. OK	
d. Created	

Which of the following are famous and common cyber-attacks used by hackers to infiltrate the user's system?
Select one:  O a. DDos and Derive-by Downloads
b. Malware & Delivers by Bowinsads     b. Malware & Delivers by Bowinsads
c. Phishing and Password attacks     d. All of the above

Ide	entify possible source(s) of unstructured data
Se	elect one:
C	a. RDBMSs
C	b. Addis Ababa University students database
	c. Twitter

O d. Microsoft employee table

What type of CSS is generally recommended for designing large web pages?	?
Select one:	
○ a Embedded	

b. External

O c. Inline

O d. Internal

```
What is the time complexity of the following code snippet in C++?
void solve() {
   string s = "scaler";
   int n = s.size();
   for(int i = 0; i < n; i++) {
       s = s + s[i];
   }
   cout << s << endl;
}</pre>
```

Select one:

O b. O(1)

c. O(n).

O d. O(n^2).

a. O(logn)

The process to gather the software requirements from client analyze and document is known as
Select one:
a. user engineering process
b. requirement engineering process

c. requirement elicitation process

d. Software engineering process

Which one of the following refers to the technique used for verifying the integrity of the message?
Select one:
o a Protocol
○ b. Digital signature
c. Decryption algorithm

d. message digest

What is the time complexity of the binary search algorithm?	
Select one:	
<ul><li>a. O(n)</li></ul>	
O b. O(1)	
○ c. O(n*n)	
Od. O(log2n)	

Selec	ct one:
O 8	a. onStart() method
<b>o</b> t	b. onClick() method
0	C. onCreate() method
0 0	d. onBackPressed() method

V	hat must be enabled in order for a RESTful web service to receive invocations from different domains, subdomains or ports?
Selec	t one:
O a	. Cache control
0 t	. Headers
0	. CORS
0	. SSL

Java's garbage collector carries out which of the following functions?
Select one:
<ul> <li>a. it frees up locations in memory that are no longer in use;</li> </ul>
O b. it disposes of an applet once a web page is no longer visible;
C. it disposes of a frame;
Od. it terminates a thread;

## What will be the output of the following code snippet?

```
void solve() {
  int a[] = {1, 2, 3, 4, 5};
  int sum = 0;
  for(int i = 0; i < 5; i++) {
    if(i % 2 == 0) {
        sum += a[i];
    }
  }
  cout << sum << endl;
}</pre>
```

## Select one:

- O a. 9
- O b. 5
- O C. 6
- O d. 15

Which one of the following is true of a class that has package scope?
Select one:
a. a class with package scope contains abstract methods only;
D. a class that has package scope is a source file and not a class file;
C. only a class with package scope can be imported from the package;
d. a class with package scope is visible only to other classes within the same package;

In operating system, which mechanism is used to create process?

Select one:

O a. By calling a deadlock detection and recovery technique

b Execution of a process creation system call by a running

b. Execution of a process creation system call by a running process

o c. A user request to create a new process

d. System initialization

In	Linux operating system, a process creates a child process using a system call:
	Select one:
	o a. yield()
	O b. exec()
	o c. init()
	od. fork()

or a binary relationship set R between entity set A and B , the Mapping Cardinality is ONE TO ONE if

- Select one:
  - a. An Entity in A is associated with any number (zero or more) of entities in B, and an entity in B is associated with any number (zero or more) of entities in A.
- b. An Entity A is associated with any number (zero or more) of entities in B, an entity in B however, can be associated with at
  most one entity in A.
- o c. An Entity in A is associated with at most one entity in B, and an entity in B is associated with at most one entity in A.
- d. An Entity A is associated with at most one entity in B, and an entity in B however, can be associated with any number (zero or more) of entities in A.

Which of the following is just opposite to the Security through obscurity principle?

Select one:

a. Least common mechanism

b. Work factor

d. Open design

c. Least privileges

Which of the following statements about local search algorithms is true?
Select one:
<ul> <li>a. The time complexity of local search algorithms is independent of the size of the problem.</li> </ul>
<ul> <li>b. Local search algorithms are typically used for solving convex optimization problems.</li> </ul>
o c. Local search algorithms always guarantee to find the globally optimal solution

d. The quality of the solution found by local search algorithms depends heavily on the starting point and the

choice of the neighborhood function.

What keyword is used to declare an asynchronous function in Javascript?	
Select one:	
○ a. future	
○ b. sync	
○ c. await	
d. async	

Α	Android is
Sel	ect one:
0	a. An operating system
0	b. a web server
0	c. a web server

Od. None of the above

which of the following	ring sorting algorithm is a divide-and _conquer type?	
Select one:		
o a. bubble sort		
o b. dynamic soi	rt	
o c. insertion sor	ort	
O d. Quick sort		

## What is the main disadvantage of uninformed search algorithms?

Select one:

- a. They are not optimal
- b. They are not consistent
- c. They are not complete
- o d. They are not admissible

Which SQL statement gives every employee a 10% raise.

- Select one:
- a. CHANGE Emp SET salary=salary \* 1.1
- b. UPDATE Emp SET salary=salary \* 1.1
- c. ALTER Emp SET salary=salary \* 1.1
- d. MODIFY Emp SET salary=salary \* 1.1

Convert the following binary representation into dotted-decimal form: 10000000 00001011 00000011 00011111

- Select one:

   a. 127.12.5.31
- O b. 126.11.3.32
- O c. 126.11.5.32
- o d. 128.11.3.31

.00	Select one:
n	a. Functional requirements
	O b. Goals of implementation
	c. Algorithm for software implementation
	od. Non functional requirement

under	which of the following Android is licensed?
Select	one:
O a.	OSS
O b.	SourceForge

o c. Apache MIT

Od. None of the above

d. Notice of the above

What is the main advantage of informed search algorithms?

- a. They are admissible
- b. They are optimal
- c. They are complete
- d. They are consistent

1	Data generated for one uses case may not be applicable to another use case. This describes which characteristic of Big Data?
	Select one:
	o a. Velocity
	O b. Value
	○ c. Veracity
	o d. Validity

A software system that manages a hotel booking system has been updated with a new feature that allows users to view room availability in real-time. A tester has been assigned to verify that existing functionality, such as the ability to book rooms and make payments, has not been adversely affected by the new feature. What type of testing is the tester performing?

- a. Integration testing
- b. User acceptance testing
- c. Functional testing
- Od. Regression testing

hat is the difference between Dijkstra's Algorithm and Unifrom Cost Search (UCS)?	
elect one:	

- a. Unifrom Cost Search finds the optimal solution while Dijkstra's Algorithm
- b. Dijkstra's Algorithm is optimal, but not UCS
- c. Dijkstra's Algorithm first collects them into a Queue but UCS discover them as they come
- d. Dijkstra's Algorithm discovers nodes as they come while UCS first collects them in a Queue

Which one of the following is it NOT possible to do in Java?	
Select one:	
3 implement more than one interface:	

b. execute more than one thread at a time;

C. create arrays with more than two dimensions;

d. create and manipulate pointers;

Public key system is useful because	
Select one:	
<ul> <li>a. It uses two keys</li> </ul>	
○ b. It is a symmetric system	
O c. There is no key distribution problem as public key can be kept in a commonly accessible database	
O d. Private key can be kept secret	

```
What will the output of the following code snippet?
void solve() {
   int a[] = \{1, 2, 3, 4, 5\};
   int sum = 0;
   for(int i = 0; i < 5; i++) {
       if(i % 2 == 0) {
           sum += *(a + i);
       else {
           sum -= *(a + i);
       }
   cout << sum << endl;
Select one:
```

O a. 2

b. 34

O c. 15

o d. 3

What a	re :	some	of	the	benefi	ts o	f big	data	applicati	ons?

- a. Improved decision-making
- b. Better customer understanding
- c. Enhanced operational efficiency
- d. All of the above

	involves generating, collecting disseminating, and stor	ring information.
Select one:		
a. Critical Mana	agement	
b. Configuration	n Management	

C. Concurrent Management

O d. Communication Management

A software testing professional has been asked to test a new feature for a client. However, the tester realizes that the feature is not working properly and may cause harm to the end-users. The client insists that the feature is released as scheduled, even though the tester has recommended further testing. What ethical principle from the ISTQB Code of Ethics should the tester follow in this situation?

Select one:

a. Honesty

b. Fairness

c. Responsibility

O d. Respect

software system that manages a hotel booking system has been updated with a new feature that allows users to view room vailability in real-time. A tester has been assigned to verify that existing functionality, such as the ability to book rooms and make ayments, has not been adversely affected by the new feature. What type of testing is the tester performing?	

a. User acceptance testing	
----------------------------	--

- b. Functional testing
- c. Regression testing

- d. Integration testing
  - negration testing

	Ainvolves the team as a unit moving the ball down field in what would appear to be an ad hoc manner
i	Select one:
	o a. RAD
	O b. DSDM
	C. Evolutionary Waterfall
	O d. SCRUM

A good software requirement specification does not have the characteristics of
Select one:  (a. completeness)
O b. reliability

c. consistency

O d. clarity

In which process model, a number of dependent phases that are repeated sequentially with no feedback loops
Select one:  a. Incremental
O b. Evolutionary
○ c. Agile ○ d. Iterative

Select one:

a. Make a for loop execute three times

What does ... operator do in Javascript?

- b. It is used to spread iterables to individual elements
- C. It makes iterators continue with the increment interval
- d. No such operator in Javascript

Thich one of the following memory management scheme is not used for mapping logical address into physical address?
Select one:
a. segmentation
○ b. Paging with segmentation
○ c. swapping
o d. paging

	Which of the following methods is used to access HTML elements using Javascript?
Sel	ect one:
0	a. getTagById()
0	b. getElementsByHTMLName()
0	C. getHTMLClassByName()
0	d. getElementsByClassName()

red 1.00	The cost of a project is computed by comparing the project to a similar project in the same application domain is called
	Select one:
	a. Estimation by Analogy
	O b. Empirical Model
	O c. Expert Judgement
	O d. Adhoc Approach

o c. Critical path

d. Project path

a. Enable cost-effective integration and acceptance tests of the system.	b. Improve accuracy of patterns in structure and implementation	/hat are the most important goals	of software architecture?	
b. Improve accuracy of patterns in structure and implementation	b. Improve accuracy of patterns in structure and implementation  c. Enable a basic understanding of structures and concepts for the development team and other stakeholders.	elect one:		
	c. Enable a basic understanding of structures and concepts for the development team and other stakeholders.	a. Enable cost-effective integr	ation and acceptance tests of the system.	
c. Enable a basic understanding of structures and concepts for the development team and other stakeholders.		<b>b</b> . Improve accuracy of pattern	ns in structure and implementation	
	d. To help understand the completeness of requirement	c. Enable a basic understandi	ng of structures and concepts for the development team and other stakeholders.	
d. To help understand the completeness of requirement		d. To help understand the cor	mpleteness of requirement	

Which of the following is contained in the src folder?
Select one:
○ a. XML
<ul> <li>b. Java Source code</li> </ul>
O c. Manifest
O d. None of the above

Which of the following is NOT an objective of software testing?	
Select one:	

b. Identifying defects

a. Enhancing usability

- c. Increasing development time
- d. Improving performance

swered it of 1.00 uestion	
	Select one:
	o a program counter
	○ b. program status word
	c. instruction register
	○ d. status register

What is the first step in the data-driven decision-making process?

Select one:

a. Making a decision

a. Making a decision
 b. Analyzing data

O C Interpreting result

O C. Interpreting results

d. Collecting data

ed .00 Triple DES uses

- a. Works with 144 bit blocks of plain text and applies DES algorithm once
- b. Working on 64-bit blocks of plain text and 56 bit keys by applying des algorithm for three rounds
- O c. 168 bit keys on 64-bit blocks of plain text
- d. Uses 128 bit blocks of plain text and 112 bit keys and apply DES algorithm thrice.

Which of the following is an example of a checked exception

Select one:

a. IOException

b. RuntimeException

c. NumberFormatException

d. NegativeArraySizeException

nich one is a false assumption to avoid race conditions to a problem of critical region?	
ect one:	
a. No process running outside its critical region may block other processes	

O b. Assumptions should be made about speeds or the number of CPUs.

• d. No two processes may be simultaneously inside the critical regions.

O c. No process should have to wait forever to inter its critical region

Which of the following informed search algorithms guarantees optimality when searching for a solution, but has an exponential time complexity in the worst-case scenario?

o a. A\* Search

- O a. A Scarci
- o b. Uniform Cost Search
- c. Iterative Deepening A\* Search
- od. Greedy Best-First Search

In this channel, I post Computer Science (Comp Sci), Software Engineering (SWENG), Artificial Intelligence (AI), Information Technology (IT) and Data Science (DS) MSc. files for my brilliants, 'cause I love them.

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✓ Twitter 🖺: www.twitter.com/dagmawiabate

☑ GitHub 🖺: www.github.com/dagmawiabate

✓ Snapchat ⊕: www.snapchat.com/@dagmawi.abate

▼ Telegram : www.t.me/dagmawi\_abate