

Question 1

Not yet answered

Marked out of 1.00

Flag question

Do you consider writing unit tests as equally important as writing production code?

Select one:

- ☐ No, production code is more important. Unit tests are only needed if the production code is of poor quality
- ☐ No, production code is more important. Unit tests should only be created if time allows for that.
- ☐ Yes because the only way to easily maintain correctly working production code is by having a lot of unit tests for it.

☒ Yes and production code must be 100% covered with unit tests.

Question 2

Not yet answered

Marked out of 1.00

Flag question

John is writing unit tests with JUnit and he wants to run some code before each test method in his test class. What should he do:

Select one:

- ☐ create a public method called beforeTest
- ☒ create a public method which returns void and has no parameters and annotate it with @Before annotation
- ☐ create a public method which returns void and has no parameters and annotate it with @BeforeClass annotation
- ☐ create a public static method which returns void and has no parameters and annotate it with @BeforeClass annotation

Question 3

Not yet answered

Marked out of 1.00

Flag question

Which answer is true for the following program?

```
public class TestFirstApp {
    static void doIt(int x, int y, int m) {
        if (x == 5) m=y;
        else m=x;
    }

    public static void main(String[] args) {
        int i=6, j=4, k=9;
        TestFirstApp.doIt(i,j,k);
        System.out.print(k);
    }
}
```

Select one:

- ☐ Doesn't matter what the values of i and j are, the output will always be 5 .
- ☐ Doesn't matter what the values of k and j are, the output will always be 5 .
- ☒ Doesn't matter what the values of i and j are, the output will always be 9 .
- ☐ Doesn't matter what the values of k and j are, the output will always be 9 .

Question 4

Not yet answered

Marked out of 1.00

Flag question

Which pattern do you see in the code below:

```
java.util.Calendar.getInstance();
```

Select one:

- ☐ Singleton Pattern
- ☒ Factory Pattern
- ☐ Facad Pattern
- ☐ Adaptor Pattern

Question 5

Not yet answered

Marked out of 1.00

Flag question

Which of the following is an example of an inline Javadoc tag?


Select one:

- ☐ <@code>
- ☒ /*@code*/
- ☐ {@code}
- ☐ @code
- ☐ /@code/

Question 6

Not yet answered

Marked out of 1.00

 Flag question

Given the code fragment:

```
1  System.out.println(2 + 4 * 9 - 3);  
2  System.out.println((2 + 4) * 9 - 3);  
3  System.out.println(2 + (4 * 9) - 3);  
4  System.out.println(2 + 4 * (9 - 3));  
5  System.out.println((2 + 4 * 9) - 3);
```

Which line of code prints the highest number?


Select one:

- ☐ Line 1
- ☒ Line 2
- ☐ Line 3
- ☐ Line 4
- ☐ Line 5

Question 7

Not yet answered

Marked out of 1.00

 Flag question

A subclass of which of the following classes should be used when trying to read data from a text file?


Select one:

- ☐ File
- ☐ InputStream
- ☐ OutputStream
- ☒ Reader

Question 8

Not yet answered

Marked out of 1.00

 Flag question

A situation where a bunch of threads cannot gain regular access to shared resources is described as:


Select one:

- ☐ Race conditions
- ☐ Livelock
- ☐ Deadlock
- ☒ Starvation

Question 9

Not yet answered

Marked out of 1.00

 Flag question

Which of the following items below is correct about Java 8?


Select one:

- ☐ Functional interfaces can have many abstract methods
- ☐ Default methods add new functionalities to interfaces with no backward compatibility
- ☒ Method references enable executing methods by their names instead of calling them directly
- ☐ There are five kinds of method references

Question 10

Not yet answered

Marked out of 1.00

 Flag question

Assuming no object exists in the pool, how many objects would be created from the following statements?

```
String s1 = new String("123");  
String s2 = "123";  
String s3 = "123";  
String s4 = s2;
```


Select one:

- ☐ 1
- ☒ 2
- ☐ 3
- ☐ 4

Question 11

Not yet answered

Marked out of 1.00

 Flag question

what property do you need to set to make your entity in hibernate immutable?


Select one:

- ☐ a. mutable="false".
- ☐ b. immutable = "true".
- ☒ c. @Immutable annotation.
- ☐ d. b & c.
- ☐ e. a or c
- ☐ f. None of the above.

Question 12

Not yet answered

Marked out of 1.00

 Flag question

Which of the following items is true for functional interfaces:


Select one:

- ☒ Must have exactly one abstract method
- ☐ Can have multiple abstract methods
- ☐ Must provide a default method
- ☐ Must have exactly one concrete method

Question 13

Not yet answered

Marked out of 1.00

 Flag question

Which data structure can be used for storing a set of integers such that each of the following operations can be done in $O(\log N)$ time, where N is the number of elements?

- deletion of the smallest element
- insertion of an element if it is not already present in the set


Select one:

- ☐ A heap can be used, but not a balanced binary search tree
- ☐ A balanced binary search tree can be used, but not a heap
- ☒ Both balanced binary search tree and heap can be used
- ☐ Neither balanced binary search tree nor heap can be used

Question 14

Not yet answered

Marked out of 1.00

 Flag question

This class allows users to write a series of messages.

Each message is identified with a timestamp and the name of the thread that wrote the message:

```
public class Logger {  
    private StringBuilder contents = new StringBuilder();  
  
    public void log(String message) {  
        contents.append(System.currentTimeMillis());  
        contents.append(" ");  
        contents.append(Thread.currentThread().getName());  
        contents.append(message);  
        contents.append("\n");  
    }  
  
    public String getContents() {  
        return contents.toString();  
    }  
}
```

How can we ensure that instances of this class can be safely used by multiple threads?


Select one:

- ☐ This class is already thread-safe
- ☒ Replacing StringBuilder with StringBuffer will make this class thread-safe
- ☐ Synchronize the log() method only
- ☐ Synchronize the getContents() method only
- ☐ Synchronize both log() and getContents()
- ☐ This class cannot be made thread-safe

Question 15

Not yet answered

Marked out of 1.00

 Flag question

We've deployed new release on the production. And it became very slow. What are your suggestion how to analyze and find bottleneck?


Select one or more:

- ☒ Check the logs
- ☐ Run with profiler
- ☐ Turn on monitoring tools
- ☐ Enable debug logging
- ☐ Add more instances to the cluster
- ☐ Call SaasOps
- ☒ Check the difference in source code from previous version
- ☐ Pray your favorite God.

Question 16

Not yet answered

Marked out of 1.00

 Flag question

Which of the following methods should a custom class loader override in order to ensure that the protected `defineClass()` method is called just one time for every class loader hierarchy and class name pair?

Select one or more:

- ☐ protected final `defineClass(String, boolean)`
- ☐ public `loadClass(String)`
- ☐ protected final `findLoadedClass(String)`
- ☐ protected `loadClass(String, boolean)`
- ☒ protected `findClass(String)`

Question 17

Not yet answered

Marked out of 1.00

 Flag question

What will happen if you try to compile and run this program?

```
public class Inc {  
    public static void main(String[] args) {  
        int[] i = {1};  
        Inc in = new Inc();  
        in.increment(i);  
  
        System.out.println(i[i.length - 1]);  
    }  
  
    void increment(int[] i) {  
        i[i.length - 1]++;  
    }  
}
```

Select one:

- ☐ Compiler error
- ☒ Compiles and runs printing out 2
- ☐ Compiles and runs printing out 1
- ☐ An ArrayIndexOutOfBoundsException at runtime

Question 18

Not yet answered

Marked out of 1.00

 Flag question

From the perspective of a Java generational garbage collector, all new objects are considered to be part of:


Select one:

- ☐ old generation
- ☒ new generation
- ☐ PermGen
- ☐ Metaspace

Question 19

Not yet answered

Marked out of 1.00

 Flag question

Tom wrote a new service. His service runs on a multi processor server, uses a large data set (more than 100Mb) and must prioritize response time over overall throughput. Which garbage collector type, in principle, is indicated for his case:


Select one:

- ☐ Serial collector.
- ☐ Parallel collector.
- ☒ Mostly concurrent collector.
- ☐ None of the above.

Question 20

Not yet answered

Marked out of 1.00

 Flag question

How to make a custom type support for "foreach" syntax?

Select one:

- ☐ It is not possible using foreach within custom classes
- ☐ Extending from an existing java container type, e.g java.util.Map
- ☒ Implementing from java.lang.Iterable
- ☐ Implementing from java.util.Iterator

Question 21

Not yet answered

Marked out of 1.00

🚩 Flag question

Which of the following libraries allow you to mock the private methods ?

Select one:

- ☐ mockito
- ☒ powermock
- ☐ Mocking private methods is not allowed.

Question 22

Not yet answered

Marked out of 1.00

🚩 Flag question

Consider you have the following test,

```
@Test
public void whenCreateMock_thenCreated() {
    List<String> mockedList = Mockito.mock(ArrayList.class);
    mockedList.add("one");
    Mockito.verify(mockedList).add("one");
    assertEquals(0, mockedList.size());
}
```

What will be the most likely out of running this test ?

Select one:

- ☐ Test will fail, as mockedList.size() is 1 after adding "one"
- ☒ Test will Pass, as mockedList is not a real object.
- ☐ Test will throw exception as manipulation on mocked objects is not allowed.
- ☐ Test will generate runtime error.

Question 23

Not yet answered

Marked out of 1.00

Flag question

Which of the following is true about Restful web services?

Select one:

- ☐ a. RESTful web services provide access to resources
- ☐ b. Each resource is identifiable by an Id / URI
- ☐ c. RESTful web services can represent resources in various formats (e.g JSON, XML)
- ☒ d. All of the above

Question 24

Not yet answered

Marked out of 1.00

Flag question

Which of the following is/are true about REST? (Select all that apply)

Select one or more:

- ☒ a. REST is a protocol
- ☐ b. REST allows the use of different data formats (e.g. JSON, XML)
- ☐ c. REST supports WS-Security
- ☒ d. REST has better performance and scalability over SOAP

Question 25

Not yet answered

Marked out of 1.00

Flag question

Which of the following is/are true about client-side caching in regards to RESTful web services?


Select one or more:

- ☒ a. Client-side caching refers to storing responses from a server in the client itself so that a client does not need to make a server request for the same resource(s) repeatedly
- ☒ b. The server response should include information about whether caching should be performed.
- ☐ c. Only the client should determine if a specific resource should be cacheable or not (Most commonly done by HTTP method).
- ☒ d. The server response should include data on how long the client should cache each resource.
- ☐ e. Only clients should determine how long of a cache is appropriate for a given resource based on client needs.

Question 26

Not yet answered

Marked out of 1.00

 Flag question

Which of the following HTTP methods are considered 'safe' AND 'idempotent'?


Select one or more:

- ☒ a. GET
- ☒ b. HEAD
- ☐ c. POST
- ☐ d. PUT

Question 27

Not yet answered

Marked out of 1.00

 Flag question

The students table was created using the following code:

```
CREATE TABLE students (  
  StudentID INT IDENTITY PRIMARY KEY  
  , FirstName VARCHAR(20)  
  , LastName VARCHAR(20)  
);
```

What would happen if you attempted to run the following code after the table was created?

```
INSERT INTO students (FirstName, LastName) VALUES ('Jane','Doe');
```

Select one:

- ☐ a. A row would be inserted into the students table with StudentID = Null
- ☐ b. A row would be inserted into the students table with StudentID = [next number in series]
- ☐ c. A row would be inserted into the students table with StudentID = "
- ☒ d. An error would be returned as a value for the primary key was not specified.

Question 28

Not yet answered

Marked out of 1.00

Flag question

Which of the following properties is usually an advantage of relational databases over NoSQL ones?

Select one:

- ☐ a. availability
- ☐ b. partition tolerance
- ☐ c. consistency
- ☒ d. speed

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Question 29

Not yet answered

Marked out of 1.00

Flag question

Check the below SQL statement-

```
SELECT * FROM Employee a WHERE rowid = (SELECT MAX(rowid) FROM Employee b WHERE a.emp_no=b.emp_no);
```

What would be the output of this?

Select one:

- ☐ a. SQL Query to find all null rows in Database
- ☒ b. SQL query to find all unique rows in Database
- ☐ c. SQL query to find all Duplicate rows in Database
- ☐ d. Syntax Error

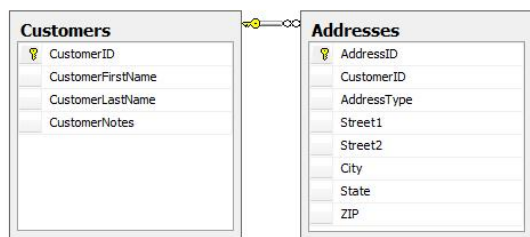
Question 30

Not yet answered

Marked out of 1.00

Flag question

Which of the following statements would be the most efficient way to select all customers without an address from the following tables?




Select one:

- ☐ SELECT * FROM customers c INNER JOIN addresses a ON c.CustomerID=a.CustomerID WHERE a.CustomerID IS NULL
- ☐ SELECT * FROM customers c CROSS JOIN addresses a WHERE a.CustomerID IS NULL
- ☒ SELECT * FROM customers c LEFT OUTER JOIN addresses a ON c.CustomerID=a.CustomerID WHERE a.CustomerID IS NULL
- ☐ SELECT * FROM customers c RIGHT OUTER JOIN addresses a ON c.CustomerID=a.CustomerID WHERE a.CustomerID IS NULL

Question 31

Not yet answered

Marked out of 1.00

 Flag question

Data replication in cassandra is done using which of the following techniques?


Select one:

- ☐ a. Cluster of replica sets with one master node.
- ☐ b. Cluster of Multi-master nodes.
- ☒ c. Cluster arranged as a ring of nodes.

Question 32

Not yet answered

Marked out of 1.00

 Flag question

Which of the following are types of NoSQL databases?


Select one or more:

- ☒ a. Key value store
- ☐ b. Tree store
- ☐ c. Structural store
- ☐ d. Hierarchical store
- ☒ e. Document store

Question 33

Not yet answered

Marked out of 1.00

 Flag question

Cassandra supports ACID transactions.


Select one:

- ☐ a. True
- ☒ b. False

Question 34

Not yet answered

Marked out of 1.00

 Flag question

In NoSQL, which technique takes the same data and copy it over the multiple nodes?


Select one:

- ☐ a. Polyglot persistence
- ☐ b. Sharding
- ☒ c. Replication
- ☐ d. Aggregation

Question 35

Not yet answered

Marked out of 1.00

 Flag question

When creating a data center cloud, what are the important network performance points to take care of so that users are not negatively impacted.


Select one or more:

- ☒ a. Network latency
- ☐ b. Network security
- ☒ c. Network packet loss rate
- ☐ d. Network buffer overflow rate
- ☐ e. Network routing information loss

Question 36

Not yet answered

Marked out of 1.00

 Flag question

Difference between cluster computing and cloud computing?


Select one:

- ☐ In cloud, computers work together but in cluster, computers work independently.
- ☒ In cloud, resources are treated independently but in cluster, the resources are treated as one system.
- ☐ In cloud, resources are virtualized but in cluster, resources are running physically on a computer system.
- ☐ In cloud, resources are not as reliable as in cluster because cluster has redundant nodes for high availability.

Question 37

Not yet answered

Marked out of 1.00

 Flag question

You're just been assigned to take a prototype data warehousing solution and think about what parts need to be expanded to be ready for a production deployment. The basic structure of the system is a single endpoint that takes a large (Several GB) zipped data file at regular intervals from several clients. This file is then unzipped, and the various data logs are pushed into columnar databases for post-processing analysis. The primary concern from the team's current Architect is that they have not formulated an authentication solution yet for the endpoint. Which of the following would be the best authentication solution that balances performance and protection against common attack variants:


Select one:

- ☐ A client's credentials are saved in a metadata JSON file in the ZIP package
- ☐ A new endpoint is created to authenticate and get a token (ex: JWT). That token is passed to the submission endpoint in the HTTP header
- ☐ A new endpoint is created to authenticate and get a token (ex: JWT). That token is passed to the submission endpoint in the HTTP body
- ☐ A new endpoint is created to authenticate and get a token (ex: JWT). That token is passed to the submission endpoint via the name of the zipped
- ☐ The package is saved in AWS/S3, and the submission endpoint is updated to take a link to this content
- ☒ There is not enough information here to provide a reasonable suggestion on an authentication/authorization scheme

Question 38

Not yet answered

Marked out of 1.00

 Flag question

Which strengths could be listed for three-tier architecture? Select all that apply.


Select one or more:

- ☐ Less overall programming
- ☒ Reusability
- ☒ Scalability
- ☐ Load balancing
- ☐ Security
- ☐ Low developer learning curve

**Question 39**

Not yet answered

Marked out of 1.00

 Flag question

What are some advantages of the Model-view-controller architectural pattern?


Select one or more:

- ☒ High cohesion
- ☒ Low coupling
- ☐ The pattern decreases the complexity of the solution by introducing new levels of indirection
- ☒ Multiple views for a model
- ☐ Small separation of concerns

**Question 40**

Not yet answered

Marked out of 1.00

 Flag question

You're working on a new Human Resources product that provides services and tools across an entire company's people structure. As part of a rapid-prototyping effort, a set of really interesting new apps have been created that would be amazing to show customers in the next beta release. One critical area that needs to be addressed before they are made generally available is the issue of Authorization. While each user already is authenticated in to the system, the new apps have no understanding of the current authorization scheme (authorization based on user claims per organization). Which of the following would be the best way to quickly provide authorization capabilities to these new apps as quickly (but securely) as possible:


Select one:

- ☐ Require each app to build its own authorization module that checks the intended query against the user's claims
- ☐ Provide a single authorization layer for these apps which uses data analysis on the output of an app to see if objects returned are out of scope of the user's claims
- ☐ Provide a single authorization layer for these apps which takes the claim and approves or rejects access to an app based on what query parameters were passed
- ☐ Use an Aspect Oriented Framework to solve the cross-cutting concern of authorization
- ☒ Refactor each app's analysis into a Kubernetes Job, and provide data access to the pod only for the data that the user is allowed to access

Question 41

Not yet answered

Marked out of 1.00

 Flag question

You are working on a new user management system, which is primarily used to track the individual user accounts for 3rd party vendor access to the system. When a new vendor is added to the system, or an old vendor is off-boarded from the system, their entire user roster (100+ users) are added to or removed from the system. This system will use a REST endpoint to provide basic CRUD access to the user table. Your goal is to create a highly performant system. What is the first thing you should focus your energy on?


Select one:

- ☒ Database table/index representations of the user object
- ☐ Caching and invalidation logic
- ☐ API design
- ☐ Documentation
- ☐ Real time performance monitors

Question 42

Not yet answered

Marked out of 1.00

 Flag question

Which of the following is true for MVC architecture?


Select one:

- ☐ View should contain the logic related to user Interface and client side validations, controller should contain the logic required to return right view and all the business logic should be contained in the Model
- ☐ View should contain the logic related to user Interface, controller should contain the flow control and business logic of the application while model should contain database access logic
- ☐ View should contain the logic related to user Interface, controller should contain the logic required to return right view and all the application business logic, validation logic, and database access logic should be contained in the Model
- ☒ View should contain the logic related to user Interface and client side validations, controller should contain the logic required to return right view and all the application business logic, validation logic, and database access logic should be contained in the Model

Question 43

Not yet answered

Marked out of 1.00

 Flag question

You want to construct objects that expose multiple properties. Most of those properties are optional and, during construction, you want to let the clients specify only the properties that they need. Which design pattern should you use in this scenario?


Select one:

- ☐ Factory method
- ☐ Abstract factory
- ☒ Builder
- ☐ Prototype

**Question 44**

Not yet answered

Marked out of 1.00

 Flag question

You are the architect for a social networking application that allows users to leave comments for other users. Recently, a spate of hacker attacks have disrupted the site, reducing revenue from site partners and advertising. Of the attack types listed next, which two can be addressed by ensuring that all special characters/word sequences are removed from all free text inputs on the web site?


Select one or more:

- ☐ Buffer overflow
- ☒ Cross-site scripting
- ☒ SQL injection
- ☐ Permission errors

Question 45

Not yet answered

Marked out of 1.00

 Flag question

Continuous Integration is a process, not a set of tools, that requires great amount of discipline from software development team members. The goal of Continuous Integration (CI) is to make sure that software is operational and working all the time.


Select one:

- ☐ True
- ☒ False

Question 46

Not yet answered

Marked out of 1.00

 Flag question

In a Cluster Operations Job, which **THREE** of the following steps can be applied to a Client Master only?


Select one or more:

- ☐ a. Install Jenkins
- ☐ b. Upgrade Jenkins
- ☐ c. Upgrade all plugins
- ☐ d. Install plugin
- ☐ e. Uninstall Jenkins

Question 47

Not yet answered

Marked out of 1.00

 Flag question

After setting up an ELB for a website, what is the best way to route traffic to it?


Select one:

- ☐ a. Generate a CNAME record for the website and point it at the DNS name of the ELB.
- ☒ b. There is no direct way to do this. You need to use Route53.
- ☐ c. Resolve the ELB name to an IP address and point the website to that IP address.

Question 48

Not yet answered

Marked out of 1.00

 Flag question

Which of the following runtime environment is not available when creating Lambda Function in AWS ?


Select one:

- ☐ Java
- ☒ C++
- ☐ NodeJS
- ☐ Python
- ☐ C#

Question 49

Not yet answered

Marked out of 1.00

 Flag question

In the context of an AWS based deployment, you have an app that is deployed in an unstable region and machines keep dying every few hours. Every time a machine comes back up, you need to be able to assign it a new FQDN. How would you implement this?


Select one:

- ☐ Setup your own DNS server
- ☐ Setup your own Dynamic DNS server
- ☐ Use Route 53
- ☐ Use the VPC DHCP options to assign the FQDN

Question 50

Not yet answered

Marked out of 1.00

 Flag question

It's possible to execute commands inside a running docker container without access the container's console?

Select one:

- ☐ a. No, there's no way to do that
- ☐ b. Yes, using the command: "docker run -it <command>"
- ☒ c. Yes, using the command: "docker exec <container_name> <command>"
- ☐ d. Yes, using the command: "docker attach <container_name> <command>"

Question 51

Not yet answered

Marked out of 1.00

Flag question

About ENTRYPOINT and CMD:

- a) CMD can be overwritten from command line when docker container runs
- b) When using ENTRYPOINT, all command line arguments will be added after ENTRYPOINT parameters
- ☒ c) CMD and ENTRYPOINT cannot be used together
- d) You can have only one ENTRYPOINT instruction in a Dockerfile, but you can have many CMD instructions and they will be executed in order

Select one:

- ☐ a, b, c & d are true
- ☐ b & d are true
- ☐ a & b are true
- ☐ a & c are false, b & d are true

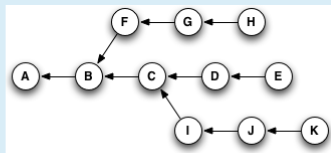
Question 52

Not yet answered

Marked out of 1.00

Flag question

The following image represents commits and branches in a Git repository. Now, assuming that we are in the node H and we Cherry Pick the commit E, what will happen?



Select one:

- ☐ a. The Diff between E and H will be applied to H
- ☒ b. The Diff between E and D will be applied to H
- ☐ c. E will replace H
- ☐ d. The diff between B and E will be applied to H

Question 53

Not yet answered

Marked out of 1.00

Flag question

How to create a new local branch in git?

Select one:

- ☐ a. git new branchName
- ☐ b. git branch -local branchName
- ☐ c. git branch -n branchName
- ☒ d. git checkout -b branchName

Question 54

Not yet answered

Marked out of 1.00

Flag question

John clones an open source project in Github. He wants to contribute to the project with some minor changes. Arrange the tasks below in the correct order to allow John to have his changes accepted on the open source project:

1. Open a Pull Request
2. Make commit with his changes
3. Push branch to Github Project
4. Create a branch from master
5. Project owner merges Pull Request

Select one:

- ☐ a. 14325
- ☐ b. 32145
- ☐ c. 42135
- ☒ d. 42315

Question 55

Not yet answered

Marked out of 1.00

Flag question

How do you merge changes from one branch to another?

Select one or more:

- ☒ a. git rebase <another branch>
- ☒ b. git merge <another branch>
- ☒ c. git pull <another branch>
- ☐ d. git apply <another branch>

Question 56

Not yet answered

Marked out of 1.00

Flag question

During a Sprint Planning meeting, the team has identified few items which are pending and has to be completed in Scrum Sprint. This is commonly known as?

Select one:

- ☐ Sprint Velocity
- ☒ Sprint Backlog
- ☐ Agile Burn Rate
- ☐ Sprint Length

Question 57

Not yet answered

Marked out of 1.00

Flag question

Usually, Agile tools provides the following reports and charts to improve agile process:

Select one or more:

- ☒ Burndown and Burnup charts
- ☒ Cumulative flow diagram
- ☐ Release projection metrics chart
- ☒ Prediction control report

Question 58

Not yet answered

Marked out of 1.00

Flag question

An issue in Jira can be:

Select one or more:

- ☒ A bug
- ☒ A project task
- ☐ A build definition
- ☐ A source bucket

Question 59

Not yet answered

Marked out of 1.00

Flag question

Scrum project management tools help agile teams in:

Select one or more:

- ☒ Increase transparency into team productivity and rates of progress
- ☐ Teams can increase accuracy and optimize their time and effort
- ☒ Measuring past performance, teams can more accurately predict the effort for next tasks
- ☐ Scrum project management tools help users visualize the amount of work required for teams, but not for individuals, improving team work

Two strings, a and b , are said to be *twins* only if they can be made equivalent by performing some number of operations on one or both strings. There are two possible operations:

- **SwapEven:** Swap a character at an even-numbered index with a character at another even-numbered index.
- **SwapOdd:** Swap a character at an odd-numbered index with a character at another odd-numbered index.

For example, $a = "abcd"$ and $b = "cdab"$ are twins because we can make them equivalent by performing operations. Alternatively, $a = "abcd"$ and $b = "bcda"$ are not twins (operations do not move characters between odd and even indices), and neither are $a = "abc"$ and $b = "ab"$ (no amount of operations will insert a c into string b).

Complete the code in the editor below, the `twins()` method with the following params.

1. An array of n strings named a .
2. An array of n strings named b .

The function must return an array of strings where each index i ($0 \leq i < n$) contains the string `Yes` if a_i and b_i are twins or the string `No` if they are not.

Input Format:

The internal test cases will pass the following input to the program using the STDIN and expect output on the STDOUT:

The first line contains an integer, n , denoting the number of elements in a .

Each line i of the n subsequent lines (where $0 \leq i < n$) contains a string describing a_i .

The next line contains an integer, n , denoting the number of elements in b .

Each line i of the n subsequent lines (where $0 \leq i < n$) contains a string describing b_i .

Constraints:

- $1 \leq n \leq 10^3$
- $1 \leq \text{length}(a_i), \text{length}(b_i) \leq 100$
- a_i and b_i are *not* guaranteed to have the same length.
- Strings a_i and b_i contain lowercase letters only (i.e., a through z).

Sample Input:

```
2
cdab
dcba
2
abcd
abcd
```

Sample Output:

```
Yes
No
```

Explanation:

Given $a = ["cdab", "dcba"]$ and $b = ["abcd", "abcd"]$, we process each element like so:

1. $a_0 = "cdab"$ and $b_0 = "abcd"$: We store **Yes** in index **0** of the return array because $a_0 = "cdab" \rightarrow "adcb" \rightarrow "abcd" = b_0$.
2. $a_1 = "dcba"$ and $b_1 = "abcd"$: We store **No** in index **1** of the return array because no amount of operations will move a character from an odd index to an even index, so the two strings will never be equal.

We then return the array $["Yes", "No"]$ as our answer.

For example:

Input	Result
2 cdab dcba 2 abcd abcd	Yes No

Answer: (penalty regime: 0 %)

```
import java.io.*;
import java.util.*;
import java.text.*;
import java.math.*;
import java.util.regex.*;

public class Tester {

    /**
     * Complete the function below.
     * DO NOT MODIFY anything outside this method.
     */
    static boolean[] twins(String[] a, String[] b) {
        boolean[] result = new boolean[a.length];
        return result;
    }

    /**
     * DO NOT MODIFY THIS METHOD!
     */
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(System.in);

        int n = Integer.parseInt(in.nextLine().trim());
        String[] a = new String[n];
        for(int i = 0; i < n; i++) {
            a[i] = in.nextLine();
        }

        int m = Integer.parseInt(in.nextLine().trim());
        String[] b = new String[m];
        for(int i = 0; i < m; i++) {
            b[i] = in.nextLine();
        }

        // call twins function
        boolean[] results = twins(a, b);

        for(int i = 0; i < results.length; i++) {
            System.out.println(results[i]? "Yes" : "No");
        }
    }
}
```