

1. What is Java?
2. Why is java called platform independent?
3. What is JDK?
4. What is JVM?
5. What is JRE?
6. Write a program to print I am student at regrow tech?

1. What is class?
2. What is object?
3. What is the naming convention for the variables in Java?
4. Write a program to to print Hi, my name is ____ and my age is ____.

1. What are keywords in Java?
2. In how many ways we can categorize the Data types. Name them with examples.
3. What do you mean by packages in Java?
4. Write a program to use all the primitive data types in Java.

1. What is Type casting in Java?
2. Define the different types of Casting in Java?
3. What will happen if we convert a char into int?
4. What is the difference between postfix and prefix unary operators?
5. Write a program to divide 2 numbers and print its quotient and remainder.

1. Name the different types of operators in Java?
2. What is the return type of Relational operators?
3. WAP using ternary operator to display a number is even or odd.
4. WAP to print the largest among 3 numbers using if-else.

1. WAP to find whether the given character is an alphabet.
2. WAP to find the minimum value among 3 values using nested if-else
3. WAP to create a basic calculator using switch statement.

1. WAP to take name as age as user input as display the person name and age.
2. WAP to take double, int, sentence, word, char from user and print each of them.
3. WAP a program to check if a year is a leap year.

1. WAP to take user's age and name as input and print them in 2 different lines using a single System.out.print() statement with name within double quotes.
Example: User gives age as 1 and name as ReGrow.
Output should be : I am "ReGrow "
I am 1 years old.
2. WAP to print all the number divisible by 3 between 1 to N. Take N as input from the user.
3. WAP to check if the reverse of a number is same as the number and display appropriate message. Ex: 141 ----it is same as its reverse.
4. WAP to print all the even numbers between 30 and 50 using do-while loop.
5. What is the difference between while loop and do-while loop.

1. WAP to find the factorial of a number using WHILE loop.
2. WAP to print from 10-1 using while loop.
3. WAP to print the table of 8.
4. WAP to find whether a number is a Special number or not. (Ex: $145 = 1! + 4! + 5!$)
5. WAP to print all the prime numbers between 1-100

1. WAP to swap values using 3rd value.
2. WAP to swap values without using third variable.
3. WAP to print the following patterns:

(i).

```
1
1 0
1 0 1
```

(ii).

```
5
5 4
5 4 3
5 4 3 2
5 4 3 2 1
```

(iii).

```
5 4 3 2 1
5 4 3 2
5 4 3
5 4
```

- 1)


```
6
 5 4
3 2 1
```

- 2) ACEGI


```
CEGI
EGI
EG
G
```

- 3)


```
*
* *
* * *
* * * *
* * * * *
```

1. What is Software Testing?
2. Briefly explain the 7 principles of Testing?
3. Mention the phases of SDLC.
4. Explain the different phases of STLC.

1. Briefly explain all the 5 Development models.
2. When does Automation start?
3. Write the difference between verification and validation.
4. What do you understand by - Unit Testing, Integration Testing, System Testing and Acceptance Testing.

1. Explain Bug Life Cycle.
2. How will you Raise a Bug ticket in JIRA?
3. Write the difference between Severity and Priority.
4. What is a Requirement Tracibility Matrix?

1. What are the different types of Manual Testing. Explain them.
2. Write the difference between Functional and Non-Functional testing. Also give Examples.
3. What do you mean by Load Testing and Stress Testing.
4. Explain Sanity Testing, Smoke Testing, Regression testing, Retesting.
5. Difference between Regression Testing and Sanity Testing.
6. Difference between Sanity Testing and Retesting.

1. What do mean by Agile. Mention its priciples.
2. Explain the complete Scrum process.
3. What all should be mentioned while writing the Test cases.
4. Write 5 Test cases for check any Whatsapp Functionality.

1. WAP to take a static array of size 10. Check whether a number is present in the array. Display appropriate message.

2. WAP to take input from user in an array. Print all the numbers that are divisible by 6 using For-each loop.
Display "No element is divisible by 6" if no element is divisible.

2. WAP to store first 5 factorials in an array and display them using while loop.

4. WAP for an infinite loop using for loop.

1. WAP to declare a 2 x 3 STATIC array and print it in matrix form.

2. WAP to declare a N x N array where N will be given by the user. Print the all the values in 2nd column.

3. WAP to declare a 3 rows 5 columns array and print all the odd numbers in the array.

4. WAP to reverse a number.

1. Write the difference between break and continue keywords.

2. Define new keyword. How do we create an object in Java.

3. WAP to print prime number between 1 to N, where user will give the value of N.

4. WAP to check if a number is present in a 2D array.

1. Why is String immutable? Define String Constant pool.

2. How many objects are created when String is created using (i) String Literal (ii) new keyword

3. WAP to print all the characters in a Sentence.

4. WAP to print the number of words in a string.

5. WAP to print fibonacci series upto 10 terms.

1. Write the difference between String, StringBuffer & StringBuilder
2. Write the difference between == and .equals()
3. WAP to print whether a number is Palindrome using String concept. Take the number as Input from user in an INTEGER variable.
4. WAP to print the pattern

```
*
***
*****
```

1. WAP to implement String methods - .indexOf(), .valueOf(), .substring(), .toArray(), .replace()
2. WAP to display your Name initials with your complete Title.
3. WAP to reverse the complete sentence and each word in it.
Example: input: I Love India output: aidnI evolI
4. WAP to print if a year is a Leap year or not.

1. WAP to interchange the case of the alphabetic characters in a sentence using Character Class.
2. WAP to separate out the numbers, alphabets and special characters from a string.
3. WAP to add all the digits present in a string and display it.
Example: input:- India 1s my love 3000. Output:- 4 (1+3+0+0+0)
4. WAP to declare a method named sum which adds three numbers. Also display the sum of those number using functions.
5. WAP to swap two numbers using 3rd variable.

1. WAP to call static and non static functions from different classes.
2. WAP to check if a number is a Special Number using functions.
3. WAP to check whether a STRING is palindrome using functions.
4. WAP to print all the even numbers in a 2-D array

1. Can call a non static method from a static method? If yes, how?
2. Can we call a static method from a non static method? If yes, how?
3. Can we use a non static variable inside a static method?
4. While returning a value from a method, what are the things we should make note of? WAP a simple program to demonstrate it.
5. What is a Constructor in Java. What are the different types of Constructors?
6. What is Constructor Overloading?
7. Explain "this" keyword.
8. What are Global, Local and Instance variables in Java.
9. Explain static keyword and its usage in Java.
10. WAP to program to count the number of words in a string WITHOUT using split()

1. What is Inheritance? State the different types of inheritance
2. Why is multiple inheritance not possible using classes.
3. Explain super keyword.
4. WAP to find the frequency of each character present in the sentence.
Example: input: ReGrow Tech output: r:2 e:2 g:1 o:1 w:1 t:1 c:1 h:1

1. How do we achieve Inheritance?
2. Can we have this() and super() from same constructor?
3. Can we have more than one constructor for a class?
4. What is Encapsulation. How can we achieve it?
5. How can we access a private data member in another class? If yes, Write a program to prove it.
6. What is Data Hiding.
7. Write the scope of all the access modifiers.
8. WAP to reverse each word of the string.
Example: input: I Love India Output: I evol aidni

1. What do you mean by abstraction in java? How can we achieve it.
2. Differentiate abstract class and interface.
3. WAP to implement interface in Java.
4. WAP to implement abstract class in java.
5. WAP to print factorial of all the numbers upto 20.

1. What is Exception in Java? Name the parent class of Exception Class.
2. Write the difference between Error and Exception with examples.
3. What do you mean by checked and unchecked exceptions. Give Examples
4. Write the difference between throw and Throws.
5. Differentiate between final and finally.
6. WAP to use try catch finally in a single program.
7. WAP to show how you will implement Custom Exception.
8. WAP to check if a string is palindrome.

1. What is a Wrapper Class. Explain Autoboxing and Unboxing.
2. WAP to add 10 elements in ArrayList, print size of ArrayList, print value at 2nd index, remove the 2nd index value, Reverse the list, check if 9 is present in list, then display the sorted list in ascending order using Iterator.
3. WAP to sort the ArrayList in Descending Order and print it using for-each loop.
4. WAP to display all the keys and all the values in a HashMap using iterator.
5. WAP to display all the elements in a HashSet.
6. Explain hashtable and hashing.
7. Write the difference between Array and ArrayList.
8. Write a program to find the frequency of all the characters in a sentence.

1. WAP to read data from a file. Replace something from the file and Write back the data to the same file.
2. Which API do we use to perform read and write operations on Excel.
3. WAP to implement method overloading in Java.
4. WAP to implement method overriding in Java.
5. WAP to remove duplicate elements from an array.

1. What is a Thread. How to create a thread.
2. Mention the different States in a Thread Life cycle.
3. Explain Upcasting and Downcasting with code.
4. WAP to print whether a number is Anagram or not.
5. WAP to find whether Date : 22/02/2022 is palindrome or not (Hint: Remove the / before checking)

1. WAP to print 1-10 without using loops.
2. WAP to open chrome browser and go to <https://regrowtech.netlify.app/>
3. WAP to give the following output. input: Regrow Tech output: R#g#o# #e#h
4. WAP to print the elements in a 2D array.
5. WAP to implement UpCasting in Java.

1. What is the Difference between Automation Testing and Manual Testing.
2. Can we automate all the manual Test cases. If not, then which all test cases cannot be automated.
3. What is Selenium. Explain its components.
4. WAP to open facebook and check if the url contains fb. Also display its title.
5. WAP to use all the navigate() methods.
6. Difference between:
i) driver.get() and driver.navigate()
ii) driver.close() and driver.quit()
7. Check whether a given number is peterson number Or not.

1. WAP to open facebook, locate and fill email box using By.name() and locate and fill password box using By.id(). Then click on login button using By.xpath().
2. WAP to print your last name first, then your middle name and at last your first name.
Example input: Faizan Tarique ReGrow output: ReGrow Tarique Faizan

1. Difference between findElement and findElements. (Mention their return types.)
2. When do we use .isDisplayed(), .isEnabled(), .isSelected() ?
3. WAP to check if title of facebook.com page contains facebook, login button is enabled or not, facebook image is displayed or not. Also in the password box write something and clear it.
4. WAP to separate numbers, special characters and alphabets from a string and print them.

1. Write the code for implementing Implicit Wait
2. Write the code for implementing Explicit Wait
3. Differentiate Implicit Wait and Explicit Wait.
4. Mention few Explicit Wait conditions (ex: visibilityOfElementLocated)
5. WAP to find duplicate characters in your name.

1. WAP to go to Demoqa site. Click on Elements Card, then click on TextBox. Fill in the details and verify all the details before closing the browser. (Send the program that you wrote in your system along with output.)
2. WAP to remove duplicate elements from the array.

1. WAP to perform alert operations. Send the program snap with output.
2. WAP to print all the category items using driver.findElement
3. Write locator to only find those items from a Cafe Menu that is not a tea.
4. Write the Difference between Absolute Xpath and Relative Xpath.
5. WAP to remove all the vowels from your name.

1. Write the difference between `.getWindowHandle` and `.getWindowHandles`. Mention their return types.
2. WAP to perform tab and window switching.
3. WAP to only print your last name.

1. Define iframe. In how many ways can we switch to a frame. Name them.
2. WAP to `getText` from nested frame and then its Parent frame and finally from the main content
3. How will you switch to 2nd frame from the inner frame of 7th Frame.
4. WAP to find the maximum of 3 numbers WITHOUT using if-else.

1. WAP to print the heading, text inside large modal and close it and click on small modal button
2. WAP to select Old Style select Menu colors Blue by visible text, Purple by index and White by value.
3. WAP to handle Select One Menu from demoqa site.
4. WAP to implement ArrayList and perform all the possible operations on it. Also use iterator to print all the inserted values after sorting in descending order.

1. WAP to print attribute value of all the options in Old Style Select Menu.
2. WAP to implement Actions Class to perform double click on an element.
3. WAP to implement Control + A using Actions Class.
4. Write the difference between actions and action in selenium.
5. WAP to add your name, age, College Name, Marks in a HashMap and print all the key and values stored in it.

1. Write the xpath for finding Google Search button using I'm feeling lucky button in Google.com
 2. Write the xpath for finding the login button using the search box in Flipkart.com
 3. How will you handle a locator whose locator is dynamically changing.
 4. WAP to find whether a String is Palindrome or not.
1. Write the difference between Desktop Application and Web Application
 2. Write the difference between submit() and click()
 3. WAP to implement uploading and downloading in selenium.
 4. WAP to find the 3rd largest and 4th smallest in an array of size 10. (Arrays.sort() should not be used to sort the array)

1. WAP to create 2 methods (1 static method and other a non-static method) - one to check if a number is a prime number and other to find the factorial of a number. Call these methods from the main main method.
 2. WAP to find the frequency of characters in a string.
 3. WAP to check if a number is present in the array.
 4. Explain public static void main()
1. Give the difference between git fetch and git pull.
 2. Explain all the git commands (taught in the class) and explain them.
 3. Why does git conflict arise? How will you resolve a git conflict?
 4. What will happen if multiple people are working and pushing code in the same branch.

1. What is the name of the folder where our jars get stored when we add dependencies in the Maven project.
2. Will 2 different project having some common dependencies download the dependencies again. If No, then why?
3. What are these maven commands used for :
 - i) mvn clean
 - ii) mvn package
 - iii) mvn install
 - iv) mvn clean package
 - v) mvn clean install
4. WAP in Java to remove duplicate elements from ArrayList.
5. WAP to move to next tab from your current tab using Selenium.
1. Write the structure of Testng.xml file
2. How will you run multiple tests present in different java files? Also state their order of execution.
3. What is priority in TestNG and how do we implement it.
4. Tell the priority in which the following methods will run: m1() with priority 3, m2() with no priority, m3() with priority -1, m4() with priority 0, m5() with priority -1, m6() with priority 2
5. WAP in Java to do any 1 program on pattern and push it on GitHub project.
6. WAP to perform a double click on a button with id "click Me" using Actions class.

1. How will you run only those cases that failed in the previous run.
2. How will you run selective cases in TestNG. Also mention your approach, if you are asked to run 3 cases out of 100. Write the code
3. What is grouping in TestNG. How will you implement it?
4. WAP in Java to find whether a number is a buzz number or not.
5. WAP to switch from tab1 to tab2.
1. Name the different annotations used in TestNG. Also mention their order of execution.
2. What all can we keep in @BeforeMethod and @AfterMethod annotations of TestNG. Give Example
3. What do you mean by Parameterization in TestNG. Name the ways in which we can achieve it.
4. Explain the implementation of @Parameters in TestNG.
5. WAP in java to find the frequency of words in a sentence.
6. Name the different ways of selecting items from a list (hint: select).

1. Implement DataProvider in TestNG. What does a dataProvider return.
 2. In which all data type variables can you store your passed excel data?
 3. How will you run your tests parallelly in TestNG?
 4. What is the Difference between Severity and Priority?
 5. WAP in Java to find the 3rd largest value in an array. (Don't use: Arrays.sort() instead write the sorting code)
 6. WAP to implement implicit wait and explicit wait in Selenium.
1. What are listeners in TestNG? Name few listeners used in TestNG.
 2. Name the methods defined in ITestListener.
 3. In how many ways can we implement Listeners in TestNG.
 4. Write the code to capture a screenshot.
 5. WAP in Java to sort the arraylist in descending order.
 6. Write a code to get the value of class attribute fro the element: `<input id='firstName' class='myFirstName'>`

1. What is Assertion in TestNG? Name the different types of Assertion.
 2. Differentiate between Soft Assertion and Hard Assertion.
 3. WAP to switch into inner frame of frame1 and then back to frame1.
 4. WAP to print first 3 prime numbers.
1. WAP to check if a number is palindrome using functions.
 2. WAP to find the number of words and number of space in a sentence using Functions.
 3. WAP to find the maximum of 3 numbers using ternary operator.