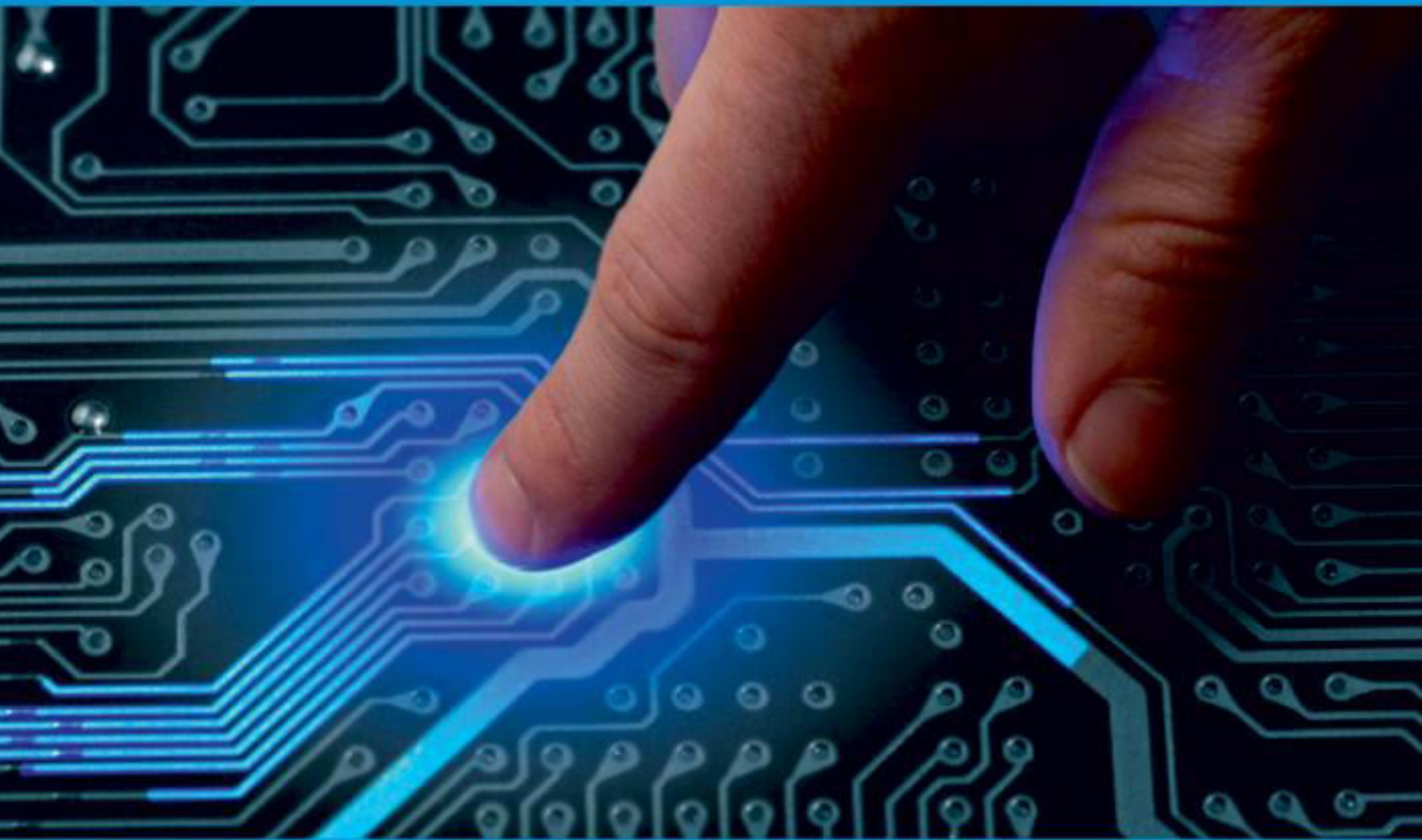




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ijircce@gmail.com



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Codes & Programming Tutorial ANDROID APP [C.A.P]

Kinjal Mehta, Gracy Verma, Danish Masood Shaikh, Mahek Tiwari

Final year students, Dept. of I.T, Thakur Polytechnic, Maharashtra, India

ABSTRACT: In the developing globalization which is always in touch and inter-connected, it is necessary to be always productive and formidable due to the reason ever and never-ending challenges faced and solutions for them have got to be the real deal. Information technology section has grown multiple times in this new era and has created various ways to ensure the comfort and evolution in technology all-round the globe, which requires competitive knowledge and practices of programming and codes which lays the fundamental blocks of software and IT sector, Henceforth there is an utter need of an application or a system who teaches and solves the problem more like a mentor from beginners to experts to hone their skills and evolve further with just a few clicks and taps on your mobile..

KEYWORDS: C.A.P; software; application; users; Readable content; Problem-solving; Interactive and Dynamic application; Android; Codes and Programming; Mentorship; Open source learning.

I. INTRODUCTION



The purpose of this document is to give a detailed description of the requirements for the —Codes & Programming (CAP)| Android Mobile App. It will illustrate the purpose and complete declaration for the development of the system. This document is primarily intended to be proposed to a customer for its approval and a reference for developing the first version of the system for the development team. It will have detailed information for the customer to make them understand the working and phases of the project easily.

The app is fast and easy to view the programs in one place.

This application is a guidebook of programming languages that help students/teachers with aspects of programming. To create a user-friendly interface so the user does not have a problem dealing with the application. To have more than one language and its programs available at a single click.

Here are a few merits of using C.A.P :

- This application is a guidebook of programming languages that help students/teachers with aspects of programming.
- To create a user-friendly interface so the user does not have a problem dealing with the application.
- User and beginner-friendly and has an open-source environment.

II. RELATED WORK

C.A.P. received great attention in the recent few years because of its manifold applications and the ability to work even easier in terms of user and their pace, it identifies what lacking and mentors out the problems with their suitable solutions

The app is fast and easy to view the programs at one place along with the, Admin can easily add the questions within the MCQs module using the app and has a set of Login section to save user progress and No need to buy reference books.

Users are more please that there are More than a hundred types of program available at a place for each language. ✓ Easy to use interface. ✓ From basic to complicate most of the codes are available.

III. PROPOSED METHODOLOGY

A unit test is the smallest testable part of an application like functions, classes, procedures, or interfaces. Unit testing is a method by which individual units of source code are tested to determine if they are fit for use

Unit tests are written and executed by software developers to make sure that the code meets its design and requirements and behaves as expected. The goal of unit testing is to segregate each part of the program and test that the individual parts are working correctly.

This means that for any function or procedure when a set of inputs are given then it should return the proper values. It should handle the failures gracefully during execution when invalid input is given. A unit test provides a written contract that the piece of code must assure.

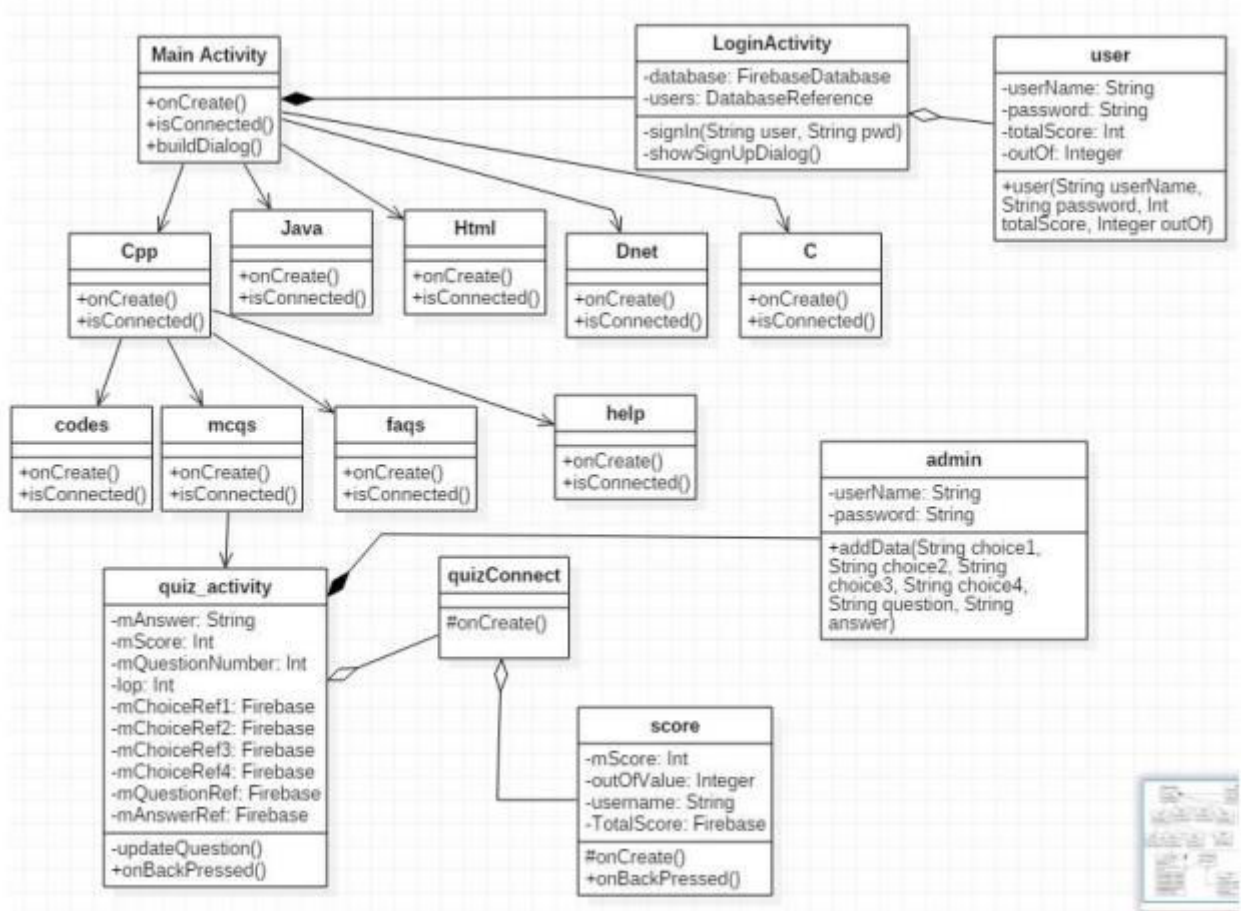
Unit Testing Techniques: Black Box Testing - Using which the user interface, input, and output are tested. White Box Testing - used to test each one of those functions behavior is tested. Grey Box Testing - Used to execute tests, risks, and assessment meth

IV. DISCUSSION AND EXPERIMENTAL RESULTS

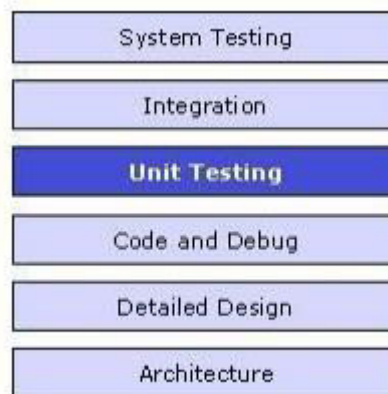
It was decided to arrange an online meeting in order to discuss the project's attributes and its desired outcomes in detail before getting started. The first meeting is an opportunity to get to know your fellow team members, brainstorm ideas, and create a plan for the project. While planning, all the members came on google meet and discuss what would function might be suitable for our application. Next, we figured out deadlines for each phase of the project. Work backward from the final due date to set timelines for each task. All member's thoughts were taken into account. Once the features were discussed, we attempted the coding part. One of our team members chosen to complete coding and accumulate the assigned responsibilities might be further passed on to other members to check the coding part.

Nevertheless, we faced an unexpected ratio of errors and fault/flops, so we had to discard some features as we faced difficulties in the coding of that features. There were also adjustments made for some pages that have been originally meant to be designed in a special manner. The team member did a part of the coding, collected coding from rest individuals who completed the project and comprehended it thus far.

Certainly, Group members have been made aware of the deadlines for each phase of the project and the fractions of each member were decided thoroughly thereafter. The followings are the block diagrams, dimensional charts, and experimental theory.



1.1 Block Representation



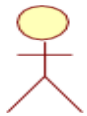
1.2 Testing and Debugging chart.

Theory for User case diagram:

A use case diagram at its simplest is a representation of a user's interaction with the system and depicts the specifications of a use case. A use case diagram can portray the different types of users of a system and the various

ways that they interact with the system. This type of diagram is typically used in conjunction with the textual use case and will often be accompanied by other types of diagrams as well.

Use case diagrams depict: 1) Actor An actor portrays any entity that performs certain roles in the system. An actor in the use case diagram interacts with the use case. It is shown outside the system hierarchy. It is denoted by



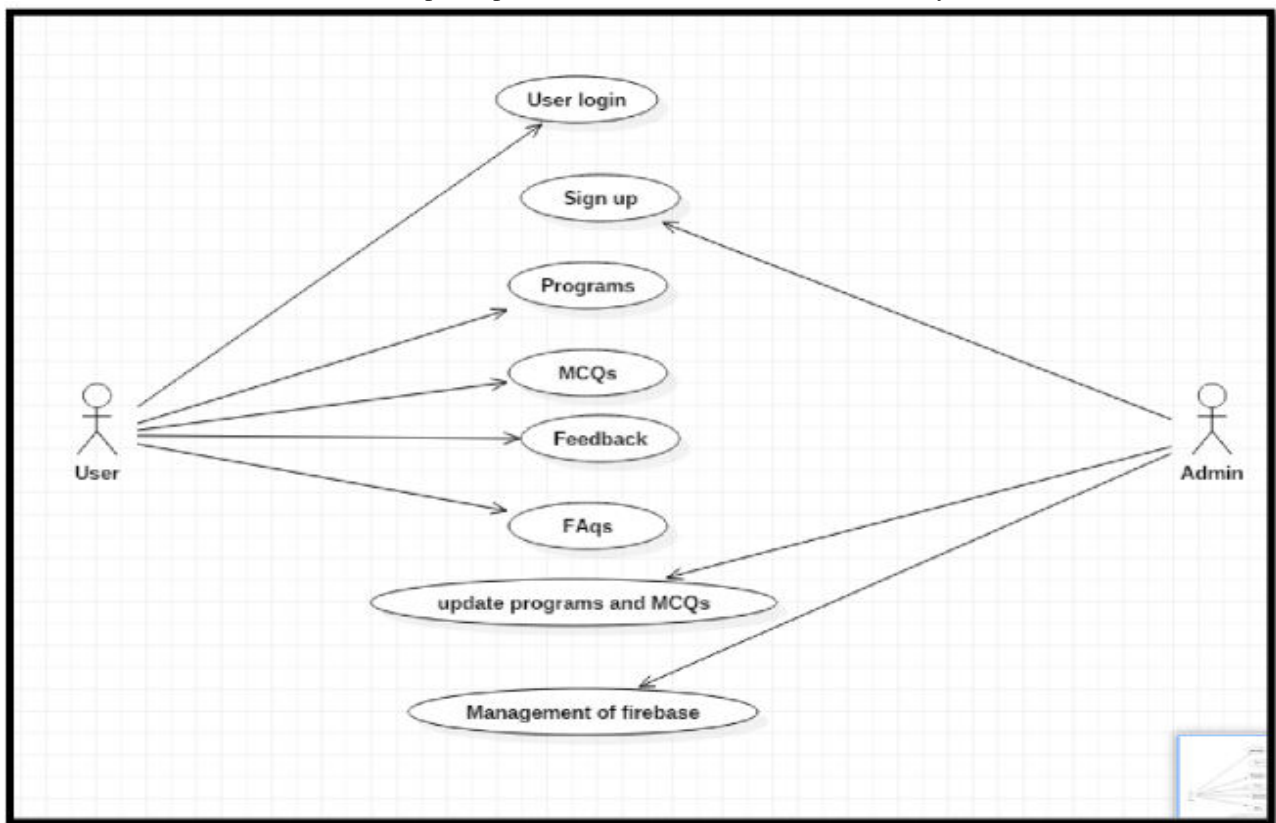
2) Use case A use case is a visual representation of business functionality in a system .each use case is the sequence of transactions performed by the system. It is shown as an ellipse in use case diagram. It is denoted by



3) System Boundary A system boundary defines the scope of what a system will be. a system cannot have infinite functionality. A system boundary defines the limits of the system. The system boundary is shown as a rectangle spanning all the use case in the system. It is denoted by

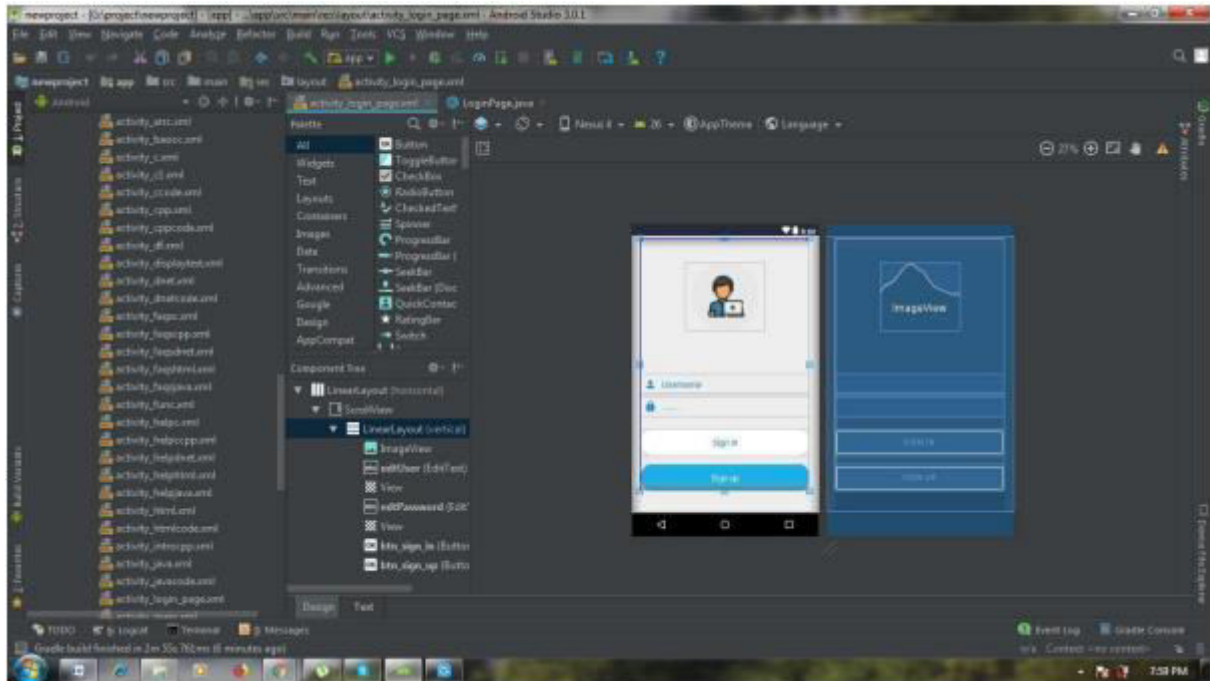


4) Association This is used to show the participation of actor in use case. It is denoted by “ _____ “

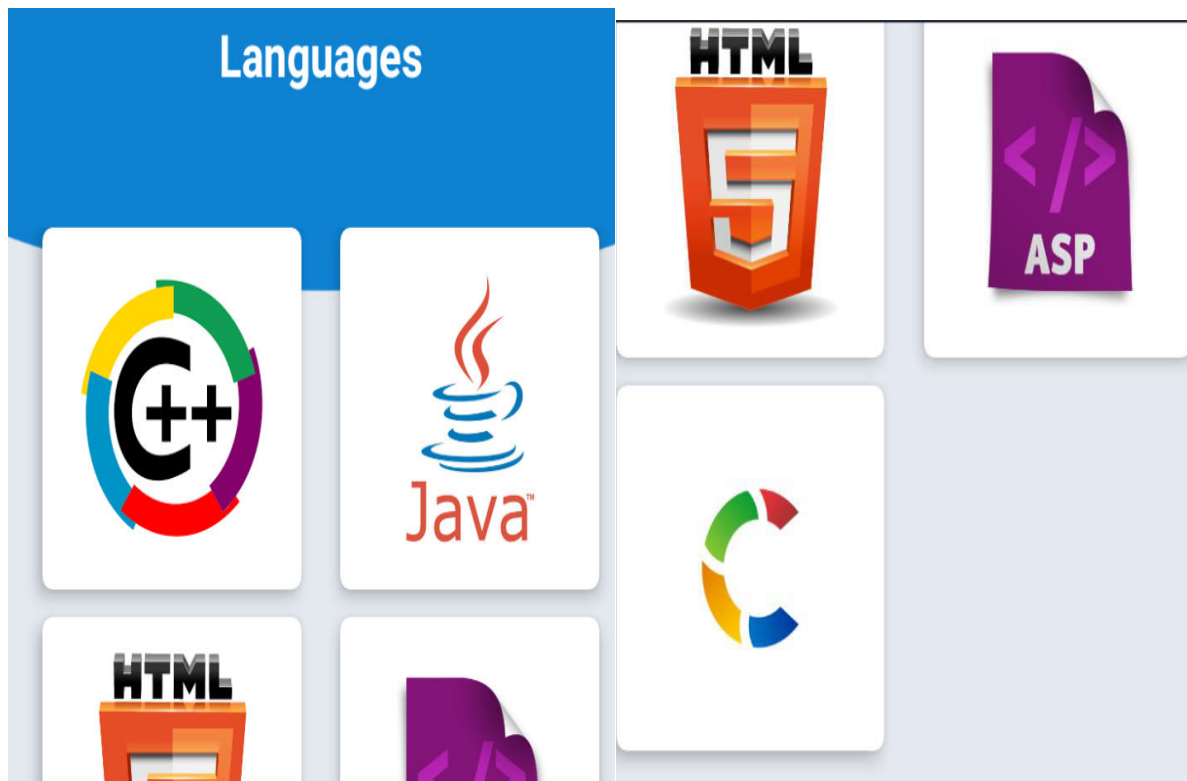


1.3 Diagrams of all the use cases used.

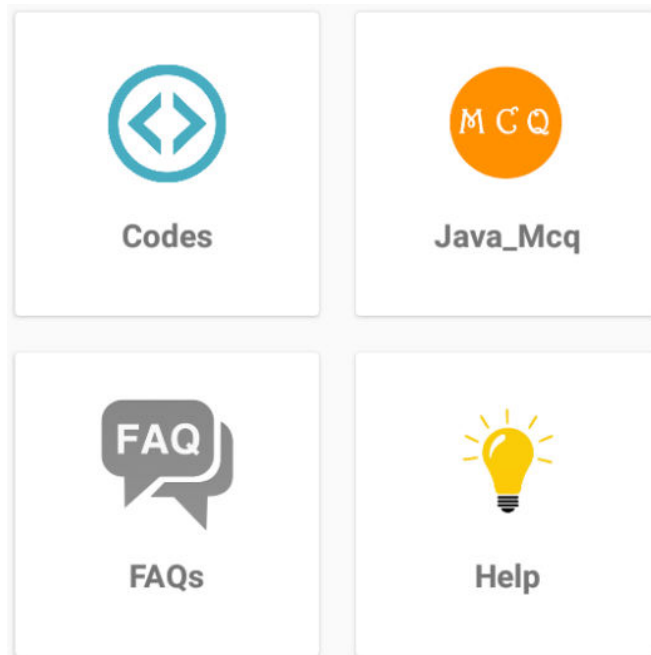
V. SIMULATION RESULTS












Code of User Interface creation (Sign up And Login Page)



Languages selection



Multiple Options to select from

	Basic	A utility class for reading and writing character	<p>Adding text to Image</p> <pre>public class Test extends JFrame { String s; ImageIcon img; Image image; JPanel p; JLabel label; JLabel text; public Test() { s = "Hi"; Font f = new Font("Serif",Font.BOLD,12); text = new JLabel("Hi"); text.setFont(f); MediaTracker mt = new MediaTracker(this); image = Toolkit.getDefaultToolkit().createImage("test.jpg"); mt.addImage(image,0); try{mt.waitForID(0);}catch(InterruptedException ie){} int width = image.getWidth(null); int height = image.getHeight(null); BufferedImage bimg = new BufferedImage(width, height, BufferedImage.TYPE_INT_RGB); bimg.createGraphics().drawImage(image, 0, 0, this); bimg.getGraphics().setFont(f); bimg.getGraphics().drawString(s,250,100); } }</pre>
	Servlets,Session,Swings,Util	Access an ejb from a servlet	
	Applet & AWT	Accessing a data source from a servlet	
	Core Java	Accessing a java mail session from a servlet	
	Data Structures	Accessing servlet jndi environment variables	
	API Problems	Accessing session items	
	XML & Others	Adding Items and Removing Items from JList	
		Adding text to Image	
		An included servlet	

Multiple Chapters , Topics and Codes and theory to study from

Score 0/10

2). where is the array sorted in memory?

STACK SPACE

HEAP SPACE

HEAP SPACE AND STACK SPACE

FIRST GENERATION MEMORY
Wrong!Array

Score 4/10

Highscore 8/20

MCQs and high scores...

Tutorials

<https://www.youtube.com/watch?v=r59xYe3Vyks&list=PLS1QulWo1RlbfTjQvTdj8Y6yyq4R7g-AI>

<https://www.tutorialspoint.com/java/index.htm>

Software download

<https://netbeans.org/downloads/>

<http://www.oracle.com/technetwork/articles/javase/jdk-netbeans-jsp-142931.html>

Help section

VI. CONCLUSION AND FUTURE WORK

In this android OS-based application which is to be used as a self-learning offline mentor for programming and code learning for multiple coding, scripting, and programming languages, it is to be expected that there would surely be more than present languages to be added.

12 hours of live mentor services to be added from the experts (That would require either your call from phone or inter to use chats and doubt solving) and multiple detailed topics that are needed for best job employment guides.



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