

Innovations by the Faculty in Teaching and Learning

1. Information and communication technology (ICT)

i) Smart Class Room:

The Interactive Smart Board or Smart Interactive Whiteboard uses a high-definition LCD screen as the display and operation platform. It has functions such as writing, annotation, drawing, multimedia entertainment, and network conferences. It incorporates many technologies such as human-computer interaction, flat panel display, multimedia information processing, and network transmission. It is information the optimal solution for office, teaching, graphic interactive presentation in the modernized era.



ii) NPTEL Video Lectures:

<https://nptel.ac.in/>

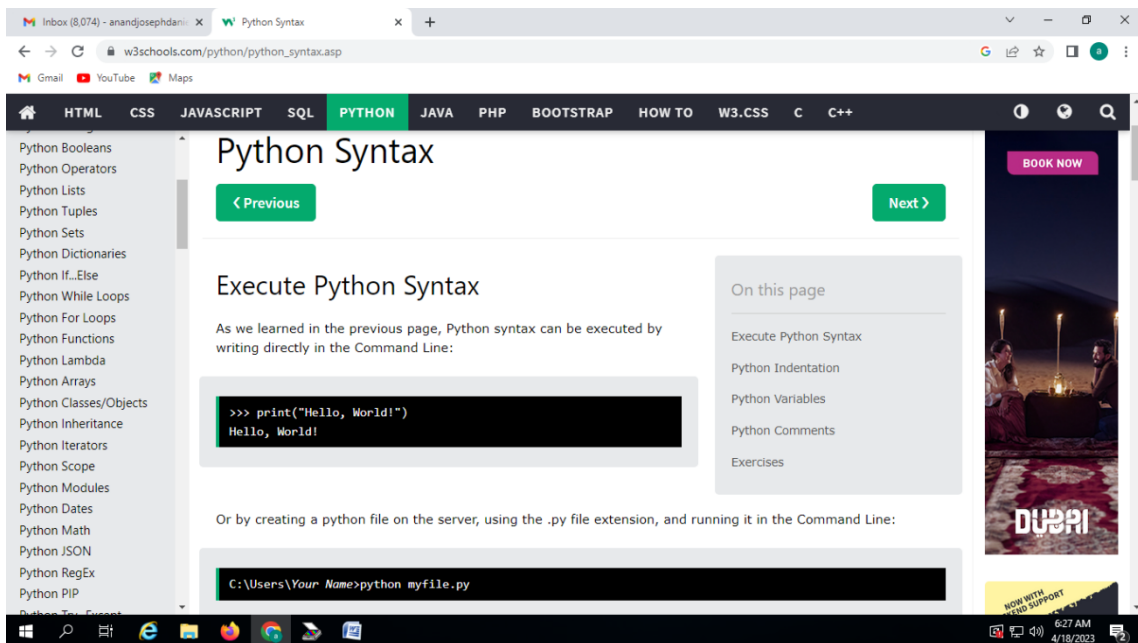
iii) W3schools:

W3Schools is optimized for learning and training. Examples might be simplified to improve reading and learning. Tutorials, references, and examples are constantly reviewed to avoid errors.

Website Link:

<https://www.w3schools.com>

Sample Window Page:

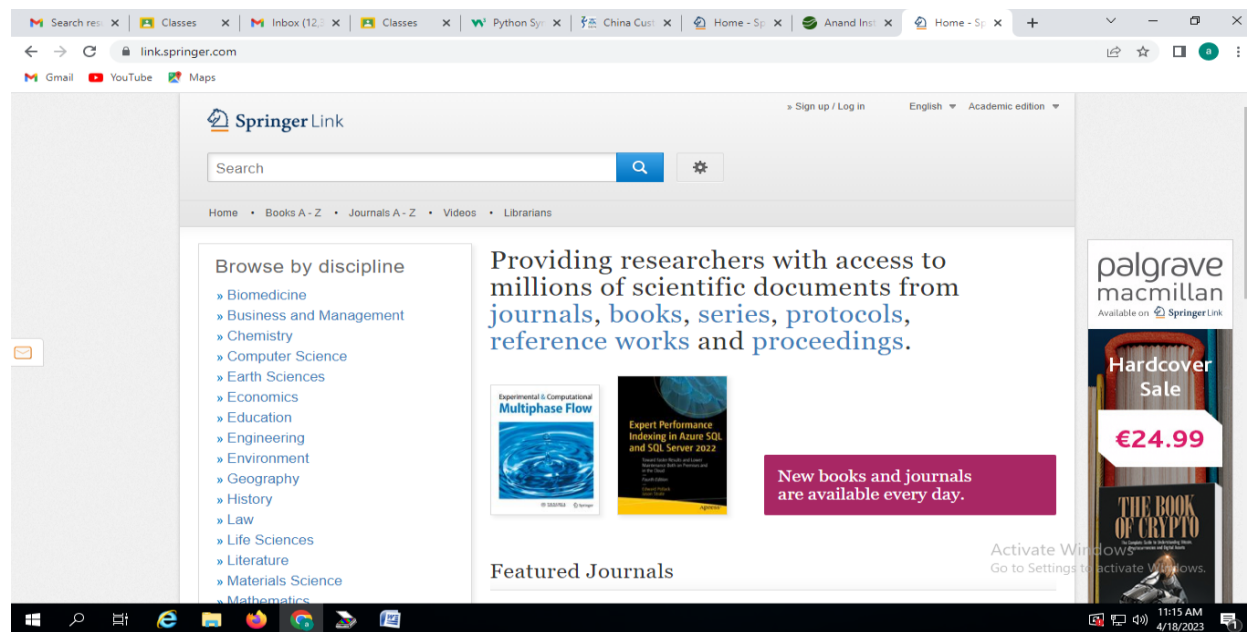


The screenshot shows a web browser window displaying the W3Schools Python Syntax page. The browser's address bar shows the URL [w3schools.com/python/python_syntax.asp](https://www.w3schools.com/python/python_syntax.asp). The page features a navigation menu at the top with categories like HTML, CSS, JAVASCRIPT, SQL, PYTHON (highlighted), JAVA, PHP, BOOTSTRAP, HOW TO, W3.CSS, C, and C++. A sidebar on the left lists various Python topics, including Python Booleans, Python Operators, Python Lists, Python Tuples, Python Sets, Python Dictionaries, Python If...Else, Python While Loops, Python For Loops, Python Functions, Python Lambda, Python Arrays, Python Classes/Objects, Python Inheritance, Python Iterators, Python Scope, Python Modules, Python Dates, Python Math, Python JSON, Python RegEx, and Python PIP. The main content area is titled "Python Syntax" and includes "Previous" and "Next" navigation buttons. The primary heading is "Execute Python Syntax", followed by the text: "As we learned in the previous page, Python syntax can be executed by writing directly in the Command Line:". Below this, a code block shows the command `>>> print("Hello, World!")` and its output `Hello, World!`. Another section states: "Or by creating a python file on the server, using the .py file extension, and running it in the Command Line:", with a code block showing `C:\Users\Your_Name>python myfile.py`. On the right side, there is an "On this page" section with links to "Execute Python Syntax", "Python Indentation", "Python Variables", "Python Comments", and "Exercises". A "BOOK NOW" button is visible at the top right, and a "DURI" advertisement is shown at the bottom right. The Windows taskbar at the bottom indicates the time is 6:27 AM on 4/18/2023.

iv) Web Based Learning online Journals and E-books:

In our department, students can use the online Journals for reading research papers and apply it in various type of project creation purpose also they can learn and improving their knowledge with different technology.

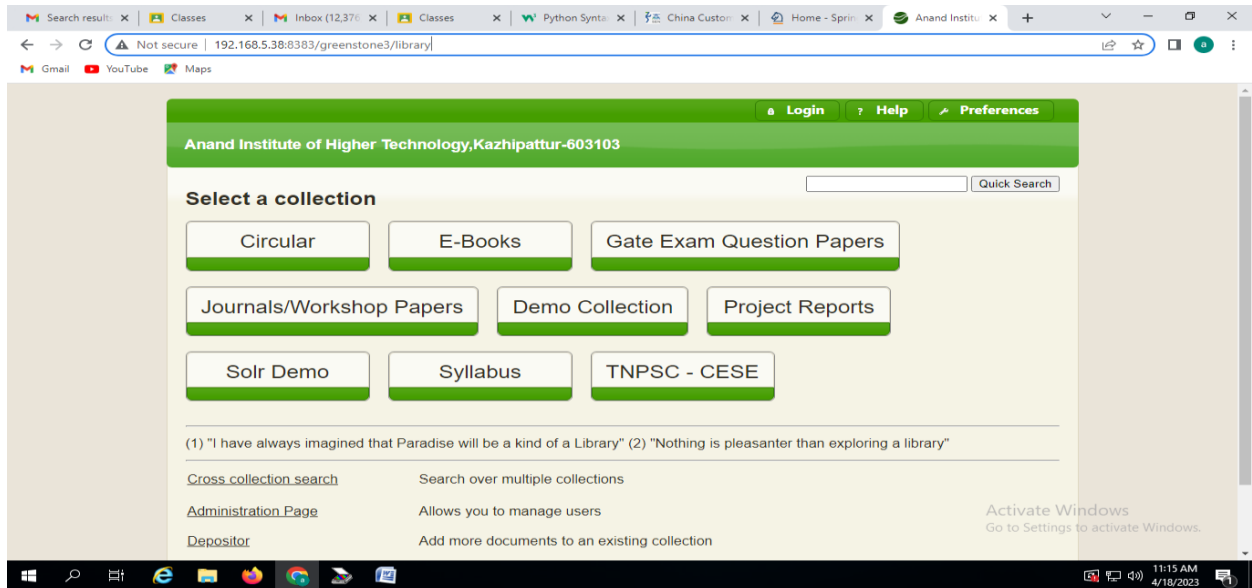
<https://link.springer.com/>



v) Digital Library:

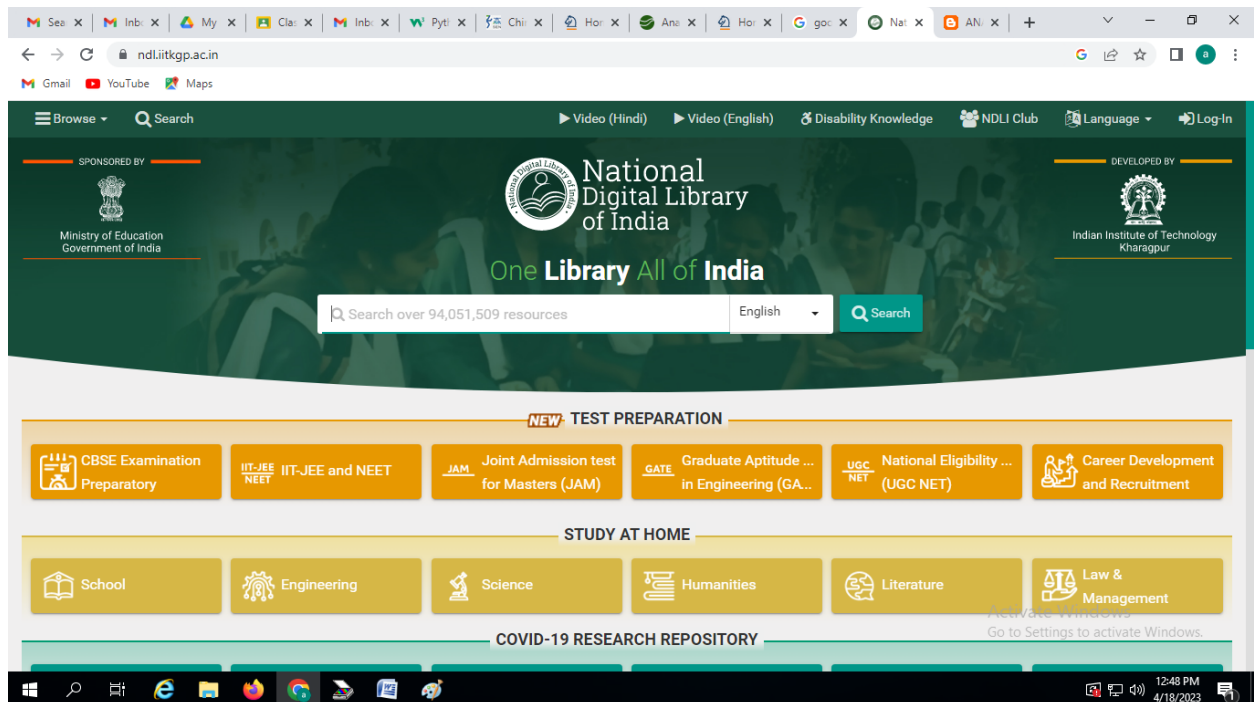
In our department students can use the digital library for accessing the E-book, Syllabus, Project reports and model question papers through the college website. A digital library, also called an online library, an internet library, a digital repository, or a digital collection is an online database of digital objects that can include text, still images, audio, video, digital documents, or other digital media formats or a library accessible.

<http://192.168.5.38:8383/greenstone3/library>



vi) National Digital Library:

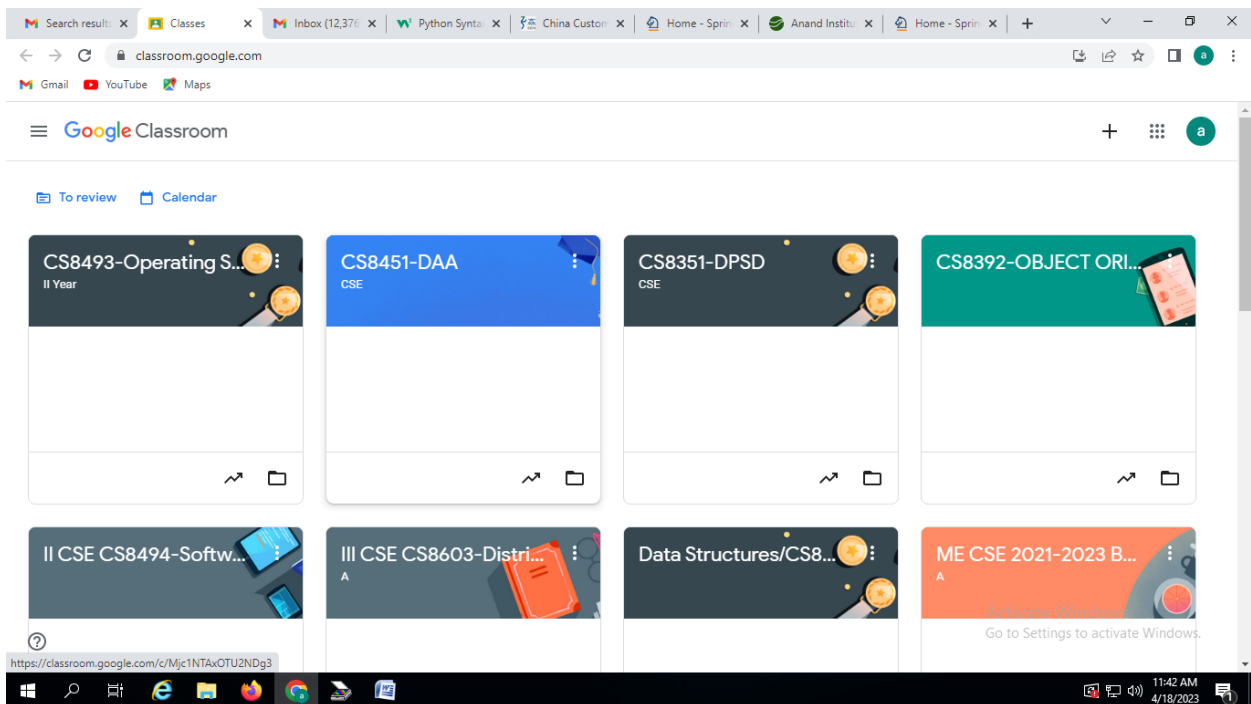
In our department, student and faculty members can access National Digital Library of India with membership account. Through this platform faculty can develop their knowledge in recent technologies. This knowledge can be shared to the students in innovative manner. This information helps the students to do innovative projects in various domains.

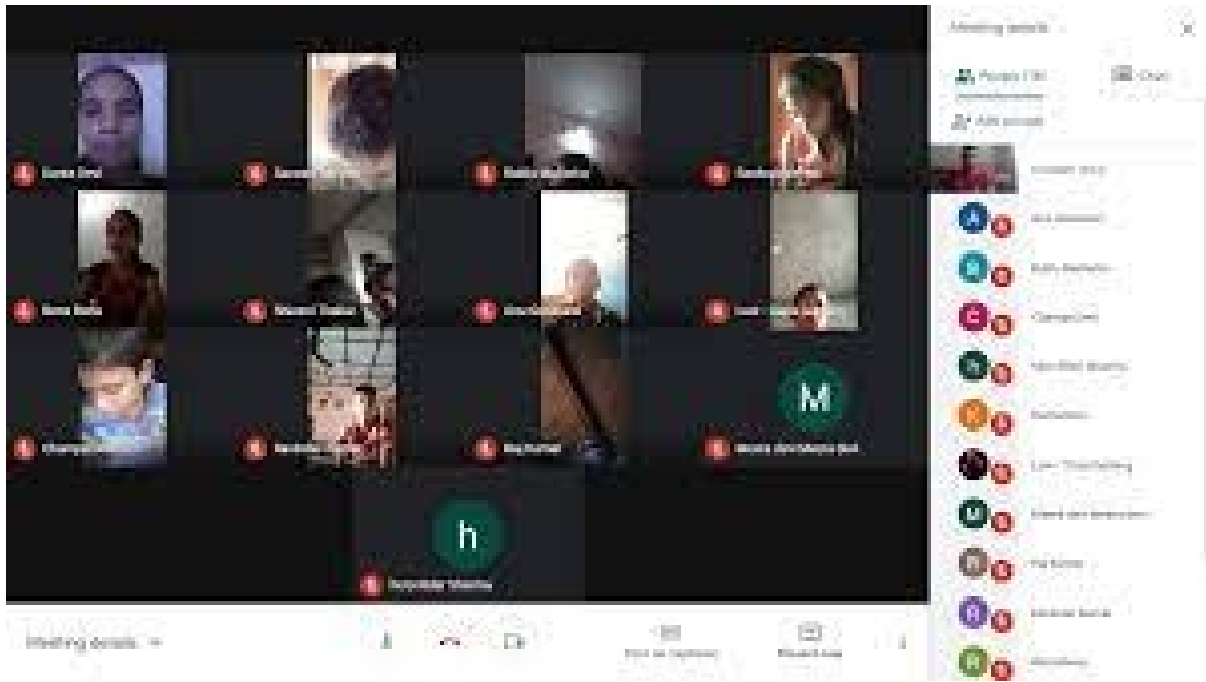


vii) E-Books Download websites:

University of Pennsylvania	http://digital.library.upenn.edu/books
Project Gutenberg	http://www.gutenberg.org
Free e books	http://www.free-ebooks.net
Free Tech books	http://www.freetechbooks.com
Campus books	http://www.campusbooks.com
University of Virginia; e-book Library	http://etext.lib.virginia.edu/ebooks/ebooklist.html
NAP Open Book	http://www.nap.edu/index.html
Internet public Library	http://www.ipl.org/div/books
Direct Text book	http://www.directtextbook.com
e-books	http://e-books.org
e-books Palace	http://www.ebookpalace.com
Electronic Library of Mathematics	http://www.emis.de/journals/short_index.html

2. Online Classes Platform



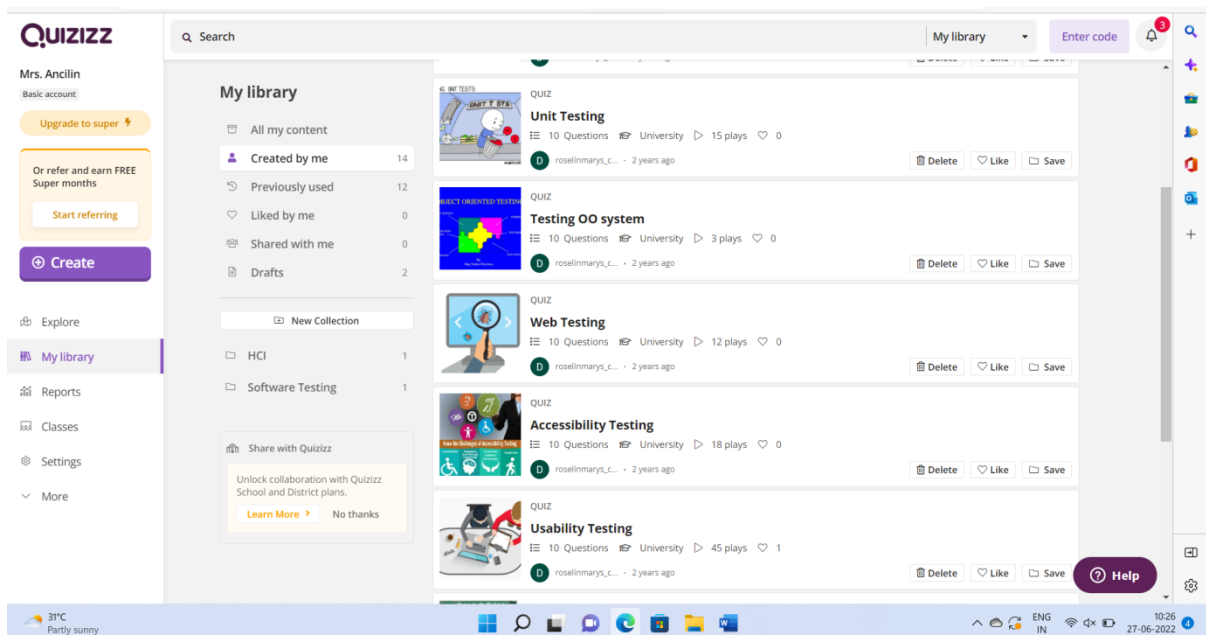


3. Model Based Teaching:

INTERROGATE THROUGH QUIZZ.COM:

Quizizz is a tool in which specific and tangible item such as a template or software program, used in performing an activity to produce a student and staff interaction with the perfect result.

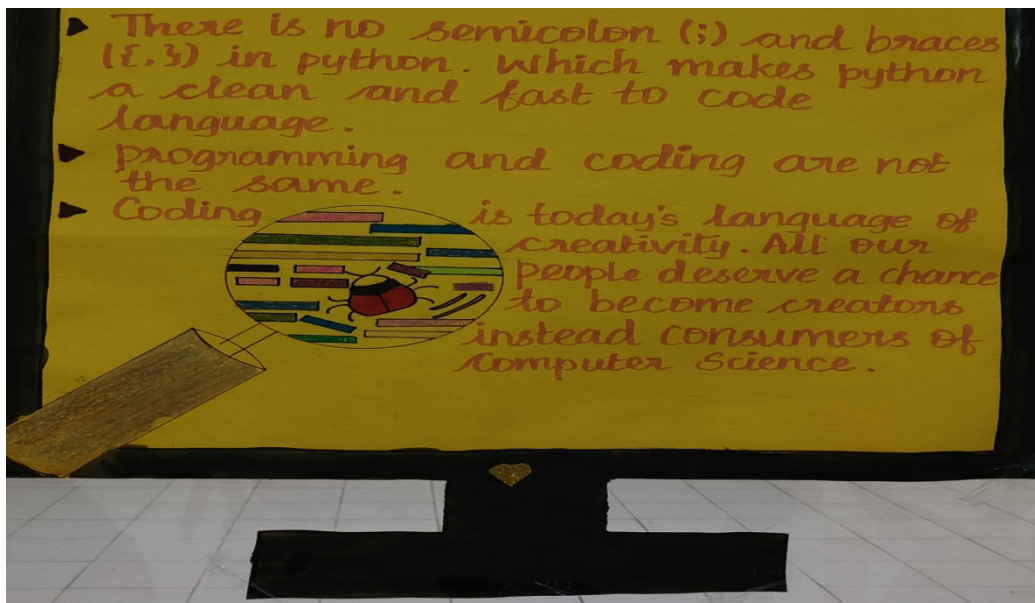
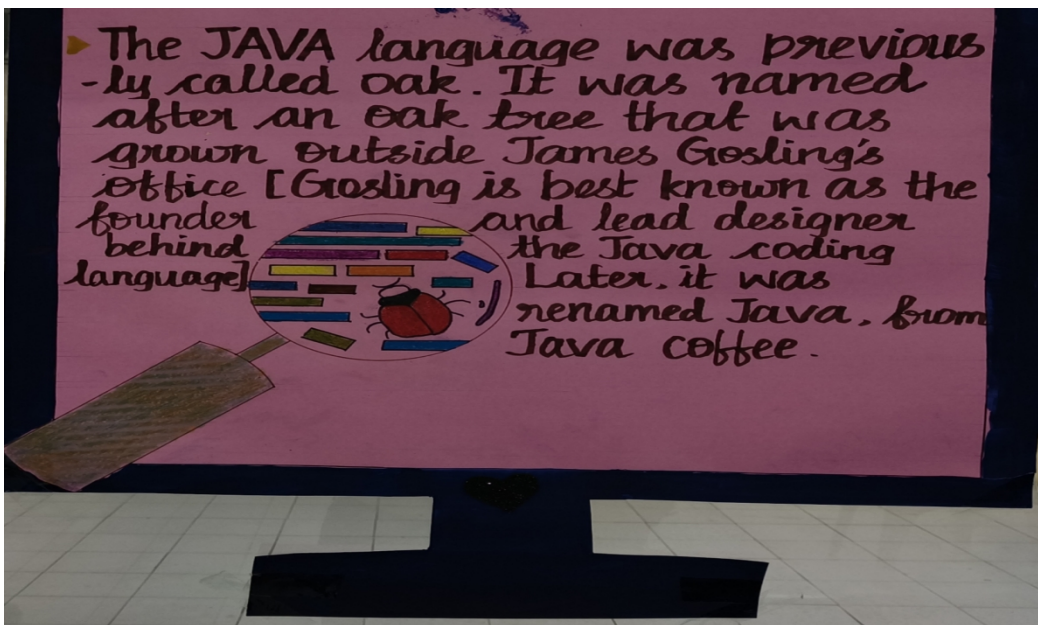
The participants test what they know by answering questions on one or more topics. It is used for teaching the students and testing them in Gamification. This can be a skill testing Challenge.



Working Models:

Working Models are a mentally visual way of linking theory with experiment, and they guide research by being simplified representations of an imagined reality that enable predictions to be developed and tested by experiment. The following are the simplified working model which are currently using by the students and faculty members.

Model 1:



- ▶ Bill Gates, Co-founder of Microsoft, created his first computer program - an implementation of tic-tac-toe that enabled users to play games against the computer.
- ▶ Steve Jobs and his partner Steve Wozniak began their career by building a computer arcade game named "Breakout".



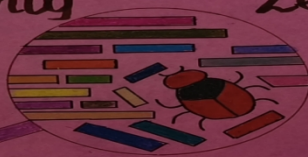
- ▶ The first person to use the term "bug" was Thomas Edison - and it was a real bug.
- ▶ The first computer programmer was a female mathematician.
- ▶ As per Gartner, more than 65% of application development in 2024 will be done by low code or programming.



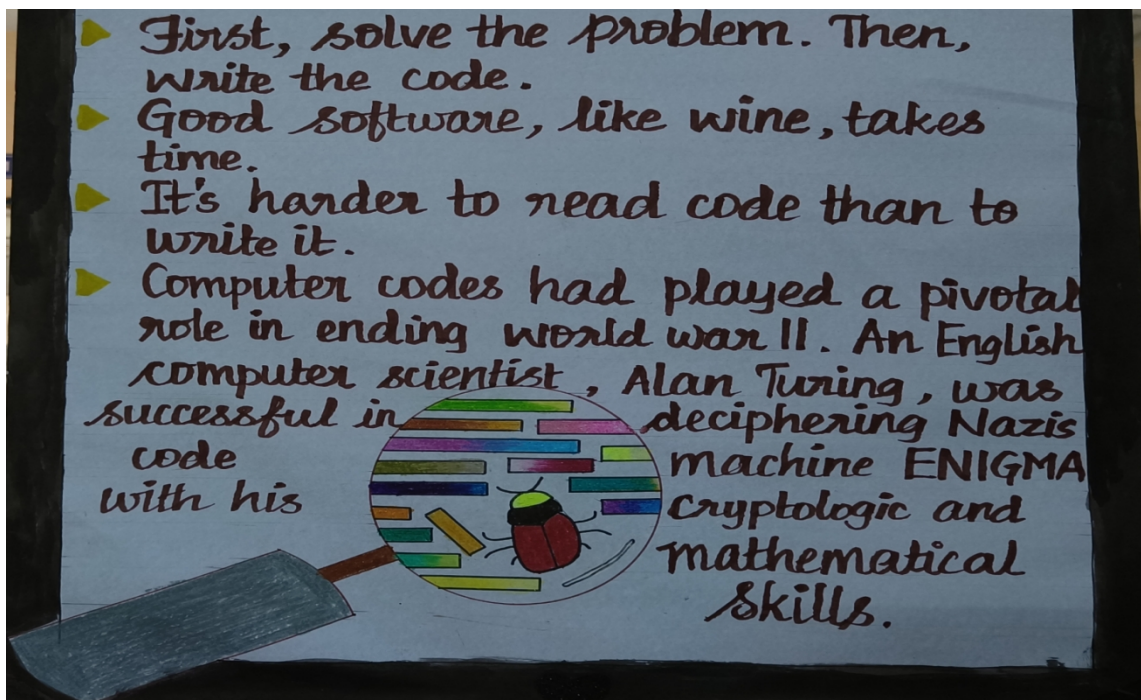
- ▶ First, solve the problem. Then, write the code.
- ▶ Good software, like wine, takes time.
- ▶ It's harder to read code than to write it.
- ▶ Computer codes had played a pivotal role in ending world war II. An English computer scientist, Alan Turing, was successful in deciphering Nazis machine ENIGMA code with his cryptologic and mathematical skills.



- ▶ The first computer didn't use any electricity. It was an automated, mechanical loom called Jacquard loom.
- ▶ Computers use binary code to store data. What this means is that the computer's software is written using only zero's [0's] and one's [1's].



Model 2:





4. Instructional Materials:

Tutorial Video Uploaded in Youtube:

The Tutorial video has taken by the faculty members and it has been uploaded to the youtube.com channel. The main aim is to deliver the subject topics using recent technologies with effective manner. So we identified the youtube.com channel for uploading the tutorial content in web through youtube.com channel.

S.N O	Staff Name	Material Uploaded	Website
1	Dr. S. Roselin Mary	Design and Analysis of Alogorithm	Youtube https://www.youtube.com/watch?v=BhY31FdqdRw&t=35s
2	Ms. A. Malathi	Basics of Python	Youtube https://www.youtube.com/watch?v=IICWq90UydQ&t=3s
3	Mr. A.S. Balaji	Stack and Queue –A Quick Learning	Youtube https://www.youtube.com/watch?v=gi4pEvJCPxA&t=5s
4	Mrs. M. Maheshwari	Artificial Intelligent	Youtube https://www.youtube.com/watch?v=UgP1gadQehY
5	Mr. D. Anand Joseph Daniel	Human Computer Interaction	Youtube https://www.youtube.com/watch?v=AQjYB84vxJE&t=7s
6	Mrs. K. Amsavalli	Tree Traversal, Binary Tree, Topological sort.	Youtube https://www.youtube.com/watch?v=BhY31FdqdRw https://www.youtube.com/watch?v=rLBwdPhYrKI https://www.youtube.com/watch?v=LORR2Wr3AcA&t=4s