

**PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY, DINDIGUL**

*(An Autonomous Institution affiliated to Anna University, Chennai)*

**Department of Computer Science and Engineering**

**ACTIVITY-BASED LEARNING**

**Role-play**

Sl. No	Course Code	Course Title	Faculty Name	Topic	Academic Year
1.	CS2312	Data Structures	Mrs.C.Sathya	Linked list	2024-2025
2.	CS2V21	Web Technologies	Ms.S.Aadhitya	Restful API	2024-2025
3.	CS2323	Object Oriented Programming	Mrs.A.Joyce	Inheritance	2024-2025
4.	IT2C25	Introduction to Operating Systems	Mrs.L.HemaLatha	Deadlock	2023-2024
5.	CS2221	Programming in C	Ms.S.Aadhitya	Sorting	2023-2024
6.	CS2321	Software Engineering	Ms.L.Dharshana Deepthi	Waterfall model	2023-2024
7.	CS3591	Computer Networks- Lab integrated	Mrs.G.Mariammal	ARP and RARP	2023-2024
8.	GE2125	Problem Solving and Python Programming	Mrs.M.Jayanthi	Merge Sort	2022-2023
9.	CS8691	Artificial Intelligence	Dr.N.Kalpana	Game Playing - optimal decisions in Games	2022-2023
10.	CS3391	Object Oriented Programming	Dr.N.Dhanalakshmi	OOPS concept	2022-2023
11.	CS3492	Database Management Systems	Mrs.M.Rabiyathul Bachiriya	SQL queries	2022-2023
12.	CS3451	Introduction to Operating Systems	Dr.D.Suresh	CPU Scheduling Algorithms	2022-2023
13.	CS8601	Mobile Computing	Dr.D.M.D.Preethi	Multiplexing	2022-2023
14.	CS3301	Data Structures	Mrs.S.Santhana Prabha	Queues, Binary Search tree	2022-2023

***Table .1 List of roleplays done in three assessment year for several courses.***

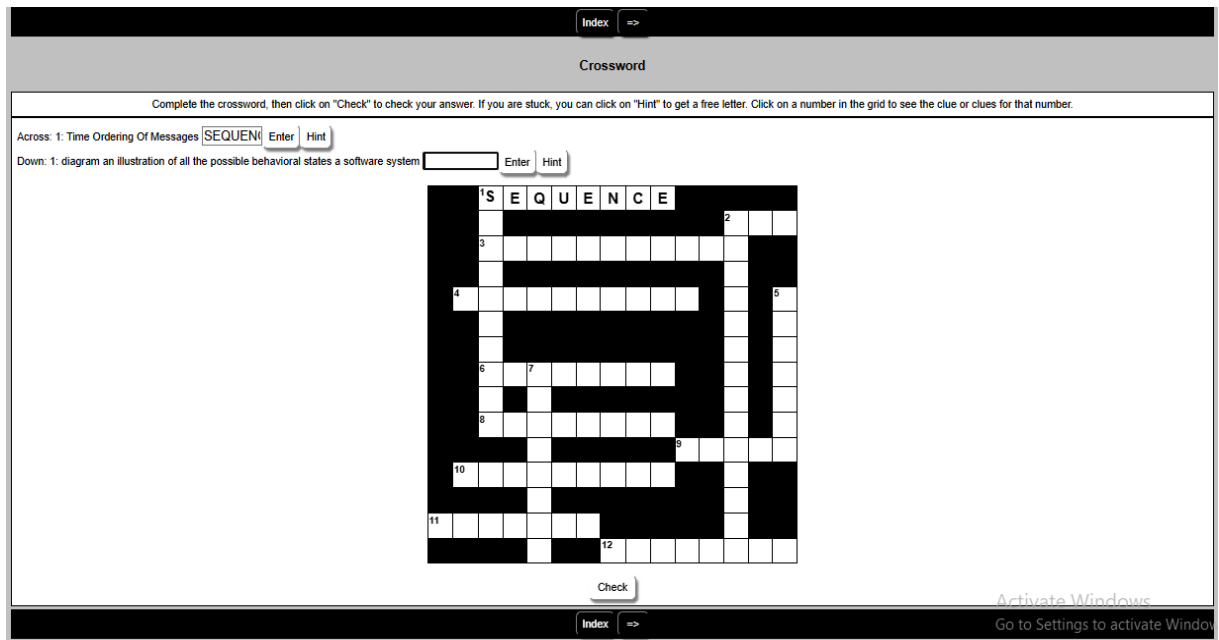


**Figure .1 Merge sort roleplay done by I year students for the course GE2125-Problem Solving and python Programming**

## Puzzles

Sl. No	Course Code	Course Title	Faculty Name	Topic	Academic Year
1.	CS2C14	Foundations of Data Science	Dr.Y.ArockiaRaj	Data manipulation with pandas	2024-2025
2.	CCS366	Software Testing and Automation	Ms.V.Abarna Swara	SDLC	2023-2024
3.	CCS332	App Development	Dr.Y.Arockia Raj	Xamarin	2023-2024
4.	CS8651	Internet Programming	Dr.A.Thomas Paul Roy	Java Servlets	2022-2023
5.	CS8602	Compiler Design – Lab integrated	Mrs.M.Jayanthi	Phases of Compiler	2022-2023
6.	CS8591	Computer Networks	Mrs.R Gayathri	Basics of computer networks	2022-2023
7.	CS8592	Object Oriented Analysis and Design	Dr.M.Buvana	UML Diagrams	2022-2023
8.	OMD553	Telehealth Technology	Dr.A.Sathya Sofia	Telemedical Applications	2022-2023
9.	CS3391	Object Oriented Programming	Dr.S.Satheesbabu	Object Cloning in Java	2022-2023

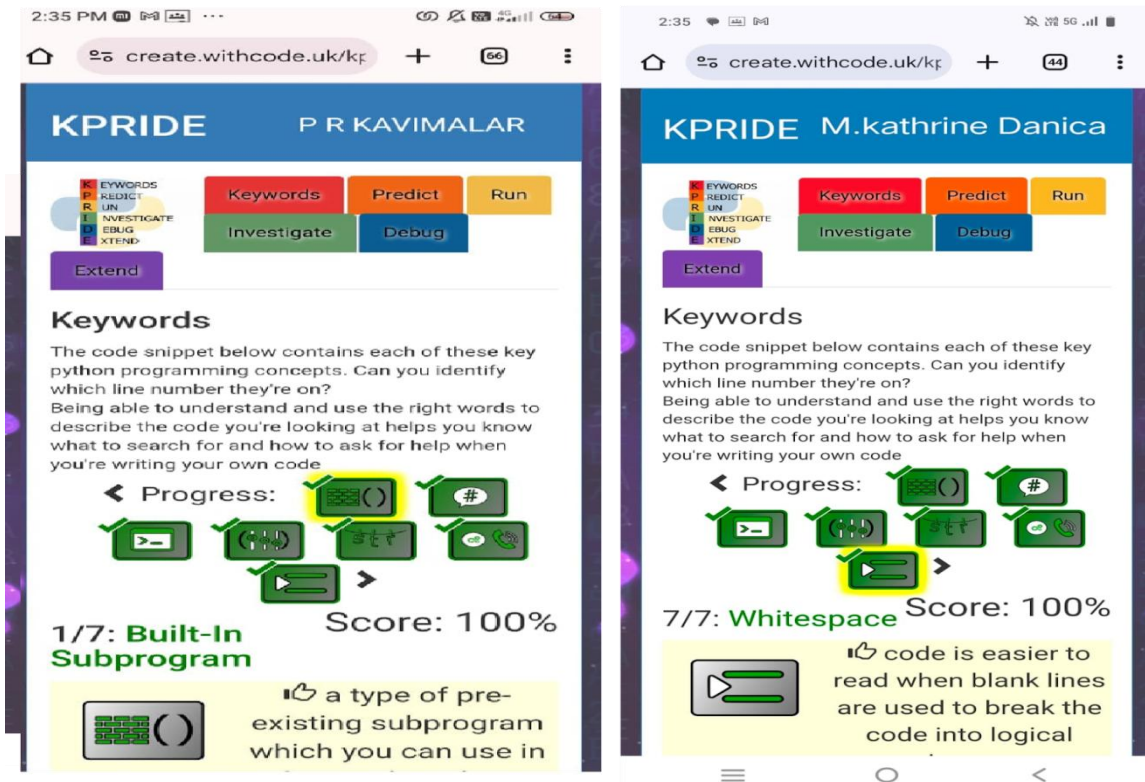
**Table .2 List of puzzles /Quiz done in three assessment year for several courses.**



*Figure 2. Sample Jcross puzzle for the course CS8592-Object Oriented Analysis and Design*

## KPRIDE

KPRIDE Python programming pedagogy is one of the active learning platforms through hands-on activities. This framework encourages the students to actively participate through predicting, running, investigating, debugging, and extending. This will encourage the learners to do rather than listen by actively engaging with the code. Students engage in a Python keyword identification task, reinforcing their conceptual clarity. Figure 3 depicts a Python learning activity where students identify programming concepts in a code snippet. The interface is interactive, showing progress with visual elements such as checkmarks and concept-related icons. Through this interactive learning method, students improve their problem-solving skills in real-world coding challenges (e.g., Hacker rank) and enhance their ability to qualify for certifications, and technical competitions.



*Figure 3. Sample KPRIDE login of the students for the course GE2C25-Problem Solving and Python Programming*