School: .....Campus: .....

Academic Year: ..... Subject Name: ..... Subject Code: .....

Semester: ..... Program: ..... Branch: ..... Specialization: .....

Date: .....

Applied and Action Learning

(Learning by Doing and Discovery)

Name of the Experiment: Web2 vs Web3 – Debate and Redesign

*Objective/Aim:

The main objective is to study and compare the key concepts, features, and differences between Web2 and Web3 technologies. It aims to help us understand how the internet is evolving from centralized systems to decentralized models. Through discussion and debate, we will analyze the benefits, challenges, and future potential of Web3.

* Apparatus/Software used:

- Laptop
- Word for documentation
- Internet for research

* Theory/Concept:

Web2 – Read and Write Web

- Enables user interaction and content creation.
- Examples include social media platforms, blogs, online shopping.
- Data is stored and controlled by centralized companies (like Google, Facebook, Amazon).

Web3 – Read, Write, and Own Web

- Built on blockchain technology, enabling decentralization.
- Users can interact directly using smart contracts.
- Emphasizes data ownership, privacy, and use of cryptocurrencies for transactions.

**** As applicable according to the experiment.***
Two sheets per experiment (10-20) to be used.

* Procedure:

- First I studied the concepts of Web2, and Web3 to understand the evolution of the internet.
- Researched the key features, benefits, and limitations of Web2 and Web3 technologies.
- Compared the two by focusing on aspects like data ownership, security, privacy, and decentralization.
- Analyzed how a simple Web2 application could be redesigned as a Web3 application in theory.
- Summarized my findings, highlighting the main differences and potential advantages of Web3 over Web2.

* Observation:

S.No	Criteria	Web2	Web3
1	Data Ownership	Centralized, controlled by companies	Decentralized, controlled by users
2	User Interaction	Interactive but through centralized apps	Direct interaction via smart contracts
3	Security	Vulnerable to hacks on central servers	Enhanced security through blockchain
4	Privacy	Data often shared with third parties	Stronger privacy via encryption and ownership
5	Censorship Resistance	Content can be censored by platforms	Resistant to censorship due to decentralization
6	Complexity	Easier to use and understand	Requires technical knowledge
7	Cost	Usually free or subscription-based	Transaction fees (gas fees) for blockchain
8	Examples	Facebook, Google, Amazon	Ethereum DApps, Decentralized Finance (DeFi)

**** As applicable according to the experiment.***
Two sheets per experiment (10-20) to be used.

ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student :

Name :

Signature of the Faculty :

Regn. No. :

**** As applicable according to the experiment.***
Two sheets per experiment (10-20) to be used