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 Experiement : Web2 vs Web3 – Debate and Redesign

Objective/Aim:

Study and understand the difference between the Web2 and Web3 advantages, disadvantages and its evolution.

Apparatus/Software Used:

- Laptop.
- MS. Word for documentation / PowerPoint.
- Study from internet.

Theory/Concept:

Web2: -

- It is a centralized platform (e.g. Facebook, YouTube).
- Companies control over the user data without the concern from the user.
- It relying on intermediatory such as Bank and the payment processors.

Web3: -

- It is a decentralized platform (e.g. Ethereum)
- User have control on his data and the applications.
- Blockchain and the smart contract build a trust between the users in its transection.
- It does not rely on intermediatory.

Key difference: -

- Ownership: Web2 - centralized; Web3 - decentralized.
- Data Privacy: Higher in Web3.
- Security: Web3 uses blockchain for enhanced security.
- Censorship Resistance: Web3 is resistant to censorship.

Procedure:

1. Studied concepts of Web2 and Web3.
2. Created a PowerPoint presentation comparing features, advantages, and disadvantages.
3. Documented observations in a comparative table.
4. Discussed practical scenarios where Web3 can improve current Web2 limitations.

Observation Table:

Feature	Web2	Web3
Definition	Current version of the internet (Read + Write)	Next-gen internet (Read + Write + Own)
Control	Centralized, controlled by companies	Decentralized, controlled by users
Data Ownership	Companies own and control user data	Users own and control their data
Examples	Facebook, YouTube, Instagram, Google	Ethereum, IPFS, Filecoin, decentralized apps
Privacy	Lower privacy; data sold for ads	Higher privacy; data secured by blockchain
Accessibility	Easy to use, user-friendly	Requires understanding of blockchain concepts
Security	Prone to data breaches and hacking	Enhanced security using cryptography and blockchain
Censorship	Can be censored by companies or governments	Censorship-resistant due to decentralization
Scalability	Highly scalable with centralized servers	Faces scalability challenges currently

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 :

Regn. No. :

Signature of the Faculty: