Centurion University

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:

To explore, understand, and compare the characteristics, benefits, and limitations of **Web2** and **Web3**, highlighting the transformation of the internet from centralized platforms to decentralized, blockchain-powered systems.

Apparatus/Software Used:

- Laptop/PC
- Word for documentation
- Brave browser for research

Theory/Concept:

Web2 – "Read + Write"

- **Timeline:** 2004 – Present
- **Definition:** The current phase of the internet where users can both consume and create content on centralized platforms.
- **Core Features:**
    1. User-generated content is hosted on platforms like Facebook, YouTube, and Instagram.
    2. Data is owned and controlled by companies, who decide its usage and monetization.
    3. Highly stable, user-friendly, and accessible to a global audience.

Web3 – "Read + Write + Own"

- **Timeline:** 2014 – Future
- **Definition:** The emerging internet model based on blockchain technology, focusing on decentralization and user ownership.
- **Core Features:**
    1. Users have direct ownership of their data and digital assets.
    2. Incorporates smart contracts, NFTs, and crypto wallets for trustless interactions.
    3. Operates on decentralized networks like Ethereum and IPFS.
    4. Offers censorship resistance and reduces reliance on intermediaries.

Procedure:

- Collect detailed information on Web2 and Web3 from research papers, articles, and case studies.
- Examine the technological evolution from Web2's centralized systems to Web3's decentralized approach.
- Identify the primary features, strengths, and weaknesses of both models.
- Compare Web2 and Web3 in terms of **ownership, privacy, security, censorship resistance, and usability**.
- Review real-world examples of Web2 (e.g., Facebook, YouTube) and Web3 (e.g., Ethereum, IPFS).
- Summarize findings to illustrate opportunities, challenges, and the future outlook of Web3.

Observation Table:

Parameter	Web2	Web3
Ownership	Centralized – controlled by companies	Decentralized – controlled by users
Data Privacy	Companies store and monetize user data	Users own and manage their own data
Security	Prone to breaches via centralized servers	Secured by blockchain-based cryptography
Censorship	Platforms can block or remove content	Resistant to censorship
Complexity	Simple and easy to use	Higher learning curve for new users
Examples	Facebook, YouTube, Instagram	Ethereum, IPFS, Polkadot

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: