Centurion University
Shaping Lives... Empowering Communities...

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 study and analyze the differences, advantages, and disadvantages between Web2 and Web3, while exploring the evolution and transformation of the internet over time.

Apparatus/Software Used:

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

Theory/Concept:

Web2: "Read + Write"

- **Timeline:** 2004 – Present
- **Definition:** The current era of the internet, where users can both consume and create content.
- **Core Features:**
  - User-generated content thrives on centralized platforms such as **Facebook, YouTube, Instagram**.
  - Companies **own and control user data**, deciding how it's stored, shared, and monetized.
  - Widely accessible, highly stable, and easy to use.

Web3: "Read + Write + Own"

- **Timeline:** 2014 – Future
- **Definition:** The next generation of the internet, powered by **blockchain technology** and designed for decentralization.
- **Core Features:**
  - Users **own their data** and digital assets directly.
  - Utilizes **smart contracts**, **NFTs**, and **crypto wallets** to enable trustless interactions.
  - Operates on decentralized networks like **Ethereum**, **IPFS**, and other blockchain-based systems.
  - Resistant to censorship and middleman control.

Procedure:

1. Gather information about Web2 and Web3 from reliable sources such as research papers, articles, and case studies.
2. Study the timeline and key technological changes that led from Web2 to Web3.
3. Identify the features, advantages, and limitations of both Web2 and Web3.
4. Compare the two generations in terms of ownership, data privacy, security, censorship resistance, and complexity.
5. Analyze real-world examples of Web2 platforms (e.g., Facebook, YouTube) and Web3 platforms (e.g., Ethereum, IPFS).
6. Summarize findings to highlight how the internet is evolving and what challenges or opportunities Web3 presents.

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	Vulnerable to hacks via centralized servers	Blockchain-based cryptography for security
Censorship	Platforms can remove or block content	Resistant to censorship
Complexity	Easy to use	Steeper learning curve
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: