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 : Comparative Analysis of Web2 and Web3

Objective/Aim:

To study and understand the different technology used , advantages, and disadvantages between Web2 and Web3, and explore the evolution of the internet.

Apparatus/Software Used:

- Laptop
- Word for documentation, Canva for presentation
- Internet for research

Theory/Concept:

Web2: (Read + Write)

- Since 2004 Web2 has started and continued till now .
- Enables user-generated content on centralized platforms (e.g., Facebook, YouTube).
- Companies own your data and do not have the full acess of your own data.
- Globally adopted by everyone.
- Many business have build upon it.

Web3: (Read + Write + Own)

- The next generation internet built on blockchain technology and it is the best one .
- Allows user to access there own data and digital assets
- Examples: Ethereum, IPFS(big data is stored here).

Key Differences:

- Platform: Web2 – centralized platform ; Web3 – decentralized platform.
- Data Privacy: Higher in Web3, and in web 2 companies can access the data and use it.
- Security: Web3 uses blockchain technology , cryptography for enhanced security.
- Censorship Resistance: Web3 is resistant to censorship.
- Complexity: Web2 has used by everyone but web3 need learning its not complex.

Procedure:

1. Studied theoretical concepts and basic difference in technology used by Web2 and Web3.
2. Created a PowerPoint presentation comparing features, advantages, and disadvantages.
3. Analysed how decentralization impacts data ownership and security.
4. Documented observations in a comparative table.
5. Discussed practical scenarios where Web3 can improve current Web2 limitations.

Observation Table:

Feature	Web2	Web3
Definition	User can read and write upon the data	User own there own data and have all the access for changes
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
Transparency	Limited transparency; hidden algorithms	Transparent and open through blockchain
Monetization	Ad-based revenue; user data monetized	User can earn directly (crypto, tokens)

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: