



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 :** 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 access 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
<b>Definition</b>	User can read and write upon the data	User own there own data and have all the access for changes
<b>Control</b>	Centralized, controlled by companies	Decentralized, controlled by users
<b>Data Ownership</b>	Companies own and control user data	Users own and control their data
<b>Examples</b>	Facebook, YouTube, Instagram, Google	Ethereum, IPFS, Filecoin, decentralized apps
<b>Privacy</b>	Lower privacy; data sold for ads	Higher privacy; data secured by blockchain
<b>Accessibility</b>	Easy to use, user-friendly	Requires understanding of blockchain concepts
<b>Security</b>	Prone to data breaches and hacking	Enhanced security using cryptography and blockchain
<b>Censorship</b>	Can be censored by companies or governments	Censorship-resistant due to decentralization
<b>Scalability</b>	Highly scalable with centralized servers	Faces scalability challenges currently
<b>Transparency</b>	Limited transparency; hidden algorithms	Transparent and open through blockchain
<b>Monetization</b>	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		
<b>Total</b>	<b>50</b>		

**Signature of the Student:**

Name :

Regn. No. :

**Signature of the Faculty:**