# MAJOR PROJECT ABSTRACT [Form – 1] (YEAR – 2022-23)

**NAME OF LAB COORDINATOR:**  Mr. Kailash Soni

**TITLE OF PROJECT:**  Product and Credentials NFT Platform for Businesses

**PROJECT TRACK: (**Tick the appropriate one / ones**)**

| 1. R&D (Innovation) | 2. CONSULTANCY (Fetched from Industry) | * 3. STARTUP   (Self-Business Initiative) | 4. PROJECT POOL (From IBM / INFOSYS) | 5. HARDWARE  / EMBEDDED |
| --- | --- | --- | --- | --- |

**BRIEF INTRODUCTION OF PROJECT:**

Product and Credentials NFT Platform for Businesses is a digital asset management system that allows businesses to create NFTs of their physical and virtual products, as well as non-transferable documents like certificates and diplomas. These NFTs offer customers a unique and valuable asset that can increase the value of their purchase. The platform provides an easy and secure way for businesses to manage their digital assets while giving customers the confidence and reassurance that they are purchasing authentic products and credentials.

**TOOLS / TECHNOLOGIES TO BE USED:**

| NAME OF TOOL / TECHNOLOGY | VERSION | SOFTWARE / HARDWARE | PURPOSE OF USE |
| --- | --- | --- | --- |
| MongoDB | 6.0.1 | Software | To store the data |
| Express.js | 4.18.2 | Software | To create the REST API |
| Next.js | 18.2.0 | Software | To create the frontend |
| Node.js | 16.13.1 | Software | To create the backend |
| Solidity | 0.9.0 | Software | To create the Smart Contract |
| Web3.js | 1.4.0 | Software | To integrate with the Smart Contract |
| Goerli Testnet | N/A | Software | To deploy the Smart Contract |

**PROPOSED PROJECT MODULES:**

| NAME OF MODULE | PROPOSED FUNCTIONALITY IN PROJECT |
| --- | --- |
| User Module | Used for managing the details of a user. |
| Web3 Module | Used to integrate with the Smart Contract. |
| Smart Contract Module | Used to manage the creation and storage of NFT’s. |
| API Module | Used to provide the API to the users. |
| Email Module | Used to send the mail to the users. |

**TEAM MEMBER DETAILS:**

| STUDENT NAME | CLASS & GROUP | MOBILE No. | EXPERTISE AREA | ROLE IN PROJECT |
| --- | --- | --- | --- | --- |
| Akshat Gadodia | CSE A-G1 | 7737152961 | Blockchain, Web3.js | Frontend/Backend/Blockchain |
| Akshita Sharma | CSE A-G1 | 7976452852 | Next.js, Node.js | Frontend/Backend/Blockchain |

**NOTE:** 1. This form is to be submitted by a team of maximum 4 students in the starting of semester to the lab coordinator.

2. Students must keep a Xerox copy of this form as reference for project work and attach it to the final report.

# ROLE SPECIFICATION OF TEAM MEMBERS [Form – 2]

| **MEMBER 1**  Akshat Gadodia | | **HANDLING MODULE**  Web3 and Smart Contract Module | |
| --- | --- | --- | --- |
| **NAME OF ACTIVITY** | **SOFT DEADLINE DATE** | **HARD DEADLINE DATE** | **DETAILS OF ACTIVITY (STORY)** |
|  |  |  |  |
| Basic Project Structure | 01/02/2023 | 05/02/2023 | Created the basic project structure required |
| Smart Contract Creation | 15/02/2023 | 20/02/2023 | Smart Contract created using Solidity |
| Smart Contract Testing | 22/02/2023 | 24/02/2023 | Smart Contract Deployed and Tested |
| Integration of Web3.js | 30/03/2023 | 01/04/2023 | Integration of account, etc is done in website using Web3.js |
| NFT Design Generation |  |  | NFT Card is designed |
| Code Optimization and Improvement |  |  | Code is improved and optimized |
| Final Testing and Debugging |  |  | Website is tested and some minor error solved |
|  |  |  |  |

| **MEMBER 2**  Akshita Sharma | | **HANDLING MODULE**  User, API & Email Module | |
| --- | --- | --- | --- |
| **NAME OF ACTIVITY** | **SOFT DEADLINE DATE** | **HARD DEADLINE DATE** | **DETAILS OF ACTIVITY (STORY)** |
|  |  |  |  |
| Frontend Skeleton Creation | 15/02/2023 | 18/02/2023 | Created the basic frontend skeleton |
| User Module Created | 22/02/2023 | 24/02/2023 | Create user module REST API and database collections and integrated with the frontend |
| Front End Styling Improved | 27/02/2023 | 28/02/2023 | Front End Styling Improved |
| API Integration Implemented | 25/03/2023 | 30/03/2023 | API functionality and key generation is implemented |
| Email Module Implemented |  |  | Email module is implemented |
| Authentication Implemented |  |  | Authentication for admin is implemented |
| Final Testing and Debugging |  |  | Website is tested and some minor error solved |
|  |  |  |  |

**MENTOR’S NAME & SIGNATURE :**  Dr. Nilam Choudhary

**NOTE:** 1. This form is to be submitted by a team of maximum 4 students in the starting of semester to the lab coordinator.

1. Every member student must keep a Xerox copy of this form as reference for his / her part in project work.
2. Students must provide the detailed list of planned activities along with their completion deadline dates.
3. The lab coordinator will check the weekly progress of students against the information provided in this form.