



## **School of Computing**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

|                              |                                                                                       |
|------------------------------|---------------------------------------------------------------------------------------|
| <b>Experiment No</b>         | 1                                                                                     |
| <b>Title of Experiment</b>   | To identify the Software Project, Create Business Case, Arrive at a Problem Statement |
| <b>Name of the candidate</b> | KUMARI HARSHITA                                                                       |
| <b>Team Members</b>          | Bhanu Prakash , Kumari Harshita, Mahesh Reddy,<br>Nandavardhan R                      |
| <b>Register Number</b>       | RA2111028010060                                                                       |
| <b>Date of Experiment</b>    | 30-1-2023                                                                             |

## **Mark Split Up**

| <b>S.No</b>  | <b>Description</b> | <b>Maximum Mark</b> | <b>Mark Obtained</b> |
|--------------|--------------------|---------------------|----------------------|
| 1            | Exercise           | 5                   |                      |
| 2            | Viva               | 5                   |                      |
| <b>Total</b> |                    | <b>10</b>           |                      |

**Staff Signature with date**

## **Aim**

To Frame a project team, analyze and identify a Software project. To create a business case and Arrive at a Problem Statement for the <title of the project>

## **Team Members:**

| <b>S. No</b> | <b>Register No</b>     | <b>Name</b>           | <b>Role</b>     |
|--------------|------------------------|-----------------------|-----------------|
| <b>1</b>     | <b>RA2111028010043</b> | <b>NANDAVARDHAN R</b> | <b>Lead/Rep</b> |
| <b>2</b>     | <b>RA2111028010041</b> | <b>BHANU PRAKASH</b>  | <b>Member</b>   |
| <b>3</b>     | <b>RA2111028010056</b> | <b>MAHESH REDDY</b>   | <b>Member</b>   |
| <b>4</b>     | <b>RA2111028010060</b> | <b>HARSHITA</b>       | <b>Member</b>   |

## **Project Title: Your energy Our solution**

## **Project Description**

We aim to solve SDG goals 7(Affordable and Clean Energy), 9(Industry, Innovation and Infrastructure ), 11(Sustainable cities and Communities) by means of providing a dashboard and necessary infrastructure for monitoring and predicting renewable energy output.

## **Business Case**

<Incorporate the Business Case template>

## **Result**

Thus, the project team formed, the project is described, the business case was prepared and the problem statement was arrived.

# ONE PAGE BUSINESS CASE TEMPLATE

|              |                 |
|--------------|-----------------|
| DATE         | 30/01/2023      |
| SUBMITTED BY | Kumari Harshita |
| TITLE / ROLE | Member          |

LOG

## THE PROJECT

In bullet points, describe the problem this project aims to solve or the opportunity it aims to develop.

Our project "Your energy Our solution" is a solution to monitor and predict renewable energy output, which will help plan for future energy demands which will also ease the strain on the power grid.

## THE HISTORY

In bullet points, describe the current situation.

- Renewable energy has been rapidly growing in recent years and is increasingly seen as a key solution to global energy and environmental challenges.
- such as wind, solar, hydro and bioenergy provide over 70% of the world's electricity generation.
- At present renewable energy is monitored using legacy software which is difficult to understand and requires special training to use.
- Also every wind farm or solar farm uses their own proprietary software which inhibits collaboration.

## LIMITATIONS

List what could prevent the success of the project, such as the need for expensive equipment, bad weather, lack of special training, etc.

- performance issues with new technologies.
- implementing the hardware to measure the output can prove challenging.
- Also storing the vast amount of data produced will be difficult.

## APPROACH

List what is needed to complete the project.

- Use a cloud service for database
- implement necessary schemas for the DB
- Procure smart electrical meters to measure output of a windmill or a solar panel
- store the data from the smart electrical meter in the DB
- Design necessary UI/UX
- Implement a prediction model to predict future output
- Integrate predictions with UI/UX

## **BENEFITS**

In bullet points, list the benefits that this project will bring to the organization

- Ease of access of data
- Ability to optimize energy usage
- Ability to plan ahead
- Can use heuristic approach to predict when breakdowns can happen