

## **Weather-Based Prediction of Wind Turbine Energy Output: A Next-Generation Approach to Renewable Energy Management**

DATE	28-02-2026
TEAM ID	LTVIP2026TMID90651
PROJECT NAME	Weather-Based Prediction of Wind Turbine Energy Output: A Next-Generation Approach to Renewable Energy Management
MAXIMUM MARKS	1 MARKS

### **5.4 - Team management Tools for Agile Planning (Jira):**

#### **✿ What is Jira?**

Jira is an Agile project management and issue-tracking tool developed by Atlassian. It supports Scrum and Kanban methodologies, helping teams plan, track, and release software efficiently.

#### **🏠 Jira Project Structure for Internship**

##### **1 Project Creation**

##### **Create a project with:**

- Project Name: Internship Capstone Project
- Template: Scrum (Recommended)
- Project Type: Software Development

##### **✦ Issue Types Configuration**

##### **Define standard issue types:**

- ● Epic – Major project phases
- ● Story – Feature or functionality
- ● Task – Smaller implementation steps
- ● Bug – Errors or defects
- ○ Sub-task – Breakdown of tasks

##### **📌 Suggested Epics (Based on Your Milestones)**

Epic	Description
Data Collection	Dataset gathering & validation

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Data Preprocessing	Cleaning & feature engineering
Model Development	ML training & evaluation
API Integration	Backend & model API
Web Integration	Frontend & deployment

### Sprint Planning Structure

#### ◆ Sprint Duration






- 2 Weeks per Sprint
- Total: 4–5 Sprints (Project Phase)

#### ◆ Sprint Workflow

1. Create Sprint in Backlog
2. Add Stories/Tasks to Sprint
3. Assign Tasks to Interns
4. Set Priority (High/Medium/Low)
5. Estimate Story Points
6. Start Sprint

### Workflow Status Configuration

#### Customize workflow:

-  To Do
-  In Progress
-  In Review
-  Done
-  Blocked

**This ensures transparent tracking of task movement.**

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## Agile Boards in Jira

### **1 Scrum Board**

Used for:

- Sprint planning
- Daily standups
- Tracking sprint progress





### **2 Kanban Board (Optional)**

Used for:

- Continuous workflow
- API & bug tracking

## Agile Reports for Monitoring

Jira provides built-in reports:

-  Burndown Chart – Sprint progress tracking
-  Velocity Chart – Team performance
-  Sprint Report – Completed vs pending work
-  Bug Report – Defect tracking

Mentors can review reports weekly to evaluate progress.

## Role-Based Access

Define permissions:

Role	Responsibilities
Project Admin	Configure board & workflow
Scrum Master	Sprint planning & review
Developer (Intern)	Task implementation

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Reviewer	Code & feature review
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### Daily Standup Format (Using Jira Board)

#### Each intern updates:

- What was completed yesterday
- What will be done today
- Any blockers

Tasks must be moved across workflow stages accordingly.

### Integration Capabilities

#### Jira can integrate with:

- GitHub (code tracking)
- CI/CD tools
- Slack or Zoho Cliq (notifications)
- Confluence (documentation)

### Example Sprint Breakdown (2 Weeks)

#### Sprint Goal: Complete Data Preprocessing

##### Planned Stories:

- Clean missing values
- Outlier detection
- Feature scaling
- Train-test split

##### Expected Outcome:

Clean dataset ready for model training.

### Benefits of Using Jira

- Structured Agile Planning
- Clear Accountability

## **Weather-Based Prediction of Wind Turbine Energy Output: A Next-Generation Approach to Renewable Energy Management**

- Transparent Sprint Tracking
- Performance Analytics
- Real-time Status Visibility
- Industry-standard project management tool

### **✦ Final Outcome**

**By implementing Jira for Agile planning, the internship project will follow:**

- Scrum-based sprint execution
- Organized backlog management
- Efficient task delegation
- Measurable progress tracking
- Professional software development workflow

