

Project Design Phase

Solution Architecture

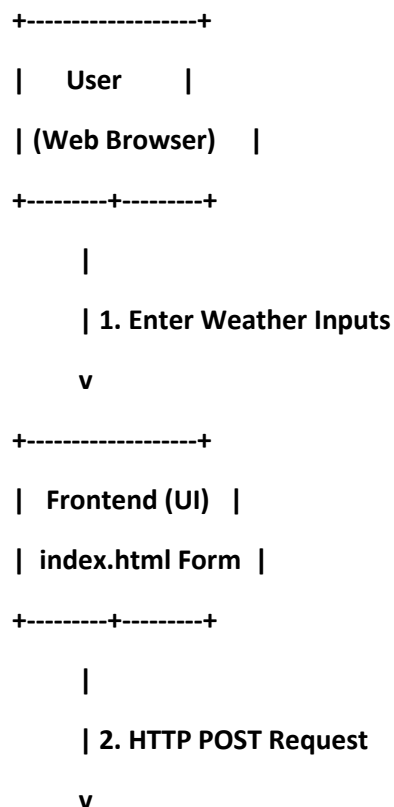
Date	16 February 2026
Team ID	LTVIP2026TMIDS57051
Project Name	Exploratory Analysis of Rainfall Data in India for Agriculture.
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Solution Architecture Diagram:



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|  Flask Backend  |
|  (app.py)      |
| - Input Validation  |
| - Feature Engineering  |
| - Data Formatting (DataFrame)|
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+-----+-----+
|
| 3. Scale Input Data
v
```

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+-----+
|  Scaler  |
| (scale.pkl) |
```

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+-----+-----+
|
| 4. Prediction
v
```

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+-----+
| ML Model  |
| (Rainfall.pkl) |
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+-----+-----+
|
| 5. Prediction Result
v
```

```
+-----+
| Result Rendering  |
| chance.html / nochance.html|
```

```
+-----+-----+
|
| 6. Display Result
v
```

```
+-----+
```

| User |
+-----+