ProjectDesignPhase-ISolutionArchitecture

Date	06oct2023
TeamID	85555168A5DB7B6B4584918BDF691CFF
ProjectName	Solar Panel Forecasting
MaximumMarks	4Marks

SolutionArchitecture:

Solutionarchitectureisacomplexprocess–withmanysub-processes–thatbridgesthegapbetweenbusinessproblemsandtechnologysolutions.Itsgoalsareto:

- Findthebesttechsolutiontosolveexistingbusinessproblems.
- Describethestructure,characteristics,behavior,andotheraspectsofthesoftwaretoprojectstakeholders.
- Definefeatures,developmentphases,andsolutionrequirements.
- Providespecificationsaccordingtowhichthesolutionisdefined,managed,anddelivered.

SolutionArchitectureDiagram:

Designing a solution architecture for solar panel forecasting involves integrating various components to ensure accurate predictions, real-time monitoring, and efficient utilization of solar energy resources. Here's a detailed solution architecture for solar panel forecasting:

```
                        +----------------+
                        | Solar Panel    |
                        | Forecasting    |
                        | System         |
                        +----------------+
                                |
                                |
                +-----------------------------+
                |                       |
        +----------------+      +-----------------+
        | Data Collection |      | Weather Data    |
        | and Preprocessing |    | Source          |
        +----------------+      +-----------------+
                |                       |
                |                       |
        +----------------+      +-----------------+
        | Feature        |      | External Data   |
        | Extraction     |      | Sources (Optional)|
        +----------------+      +-----------------+
                |                       |
                |                       |
        +----------------+      +-----------------+
        | Forecasting    |      | Real-time Weather |
        | Model          |      | Updates (Optional)|
        +----------------+      +-----------------+
                |                       |
                |                       |
        +----------------+      +-----------------+
        | Model Validation |    | Forecast        |
        | and Evaluation  |     | Results         |
        +----------------+      +-----------------+
                        |
                        |
                +----------------+
                | Visualization  |
                | and Reporting  |
                +----------------+
```