

PROJECT DESIGN PHASE - II
SOLUTION ARCHITECTURE

Date	21 October 2023
Team ID	Team 591276
Project Name	Pediatric Allergies Unveiled: A Tableau Exploration of Prevalence and Demographics
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.



Data Sources:

- Healthcare Institutions
- Surveys
- Government Agencies
- Research Studies

Data Collection & Storage:

- Data Collection: Extract, Transform, Load (ETL) process
- Data Storage: Secure and Scalable Database

Data Preprocessing:

- Data Cleaning
- Standardization

Data Analysis & Visualization:

- Tableau for Data Visualization
 - Geospatial Visualizations
 - Time-Series Visualizations
 - Demographic Comparisons

Interactive Dashboards:

- Tableau Dashboards
 - Filters
 - Tooltips
 - Drill-Down

Data Security & Compliance:

- Data Encryption
- Access Control
- Compliance with Data Privacy Regulations

Collaboration & Expert Involvement:

- Healthcare Experts
- Epidemiologists
- Statisticians

Documentation:

- Data Sources
- Data Processing Steps
- Tableau Configurations

Benefits & Outcomes:

- Data-Driven Insights
- Improved Healthcare Decision-Making
- Targeted Interventions
- Public Awareness

Future Considerations:

- Potential Expansion
- Additional Data Sources

Maintenance & Support:

- Ongoing Updates
- Data Accuracy & Relevance

Training:

- Users
- Stakeholders
- Project Team

Testing & Quality Assurance:

- Data Accuracy & Reliability

Cost & Resource Considerations:

- Estimated Costs

Required Resources

Solution Architecture diagram



