# Phase 6: Functional and Performance Testing

## 6.1 Functional Testing

• Verified correct loading of rainfall dataset (CSV/Excel).
• Tested data cleaning process including missing value handling and duplicate removal.
• Validated statistical calculations such as mean, median, and yearly totals.
• Checked proper generation of visualizations including bar charts, line graphs, and heatmaps.
• Ensured accurate state-wise and seasonal rainfall analysis results.

## 6.2 Performance Testing

• Measured execution time for data processing and visualization tasks.
• Tested system performance with large rainfall datasets.
• Verified efficient memory usage during computation.
• Confirmed scalability for multi-year rainfall data analysis.
• Cross-validated results for accuracy and consistency.

## Project Title: Exploratory Analysis of Rainfall Data in India

| Role | Name | Roll Number |
|------|------|-------------|
| Team Leader | B. Silpa Reddy | 223H1A0518 |
| Team Member | A. Kavya | 223H1A0502 |
| Team Member | N. Vaishnavi | 223H1A0559 |
| Team Member | B. Anusha | 223H1A0510 |