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# Sentiment Analysis for Software Feedback

- To develop a sentiment analysis tool that processes user feedback from platforms like app stores, forums, or social media.
- The tool will classify feedback into categories such as positive, negative, or neutral, enabling developers and product managers to focus on critical issues and improve user satisfaction.

# Key Components

- Data Collection (Identifying Sources , Data Scraping, Data Storage)
- Data Preprocessing (Text Cleaning, Tokenization, Sentiment Labels)
- Model Development (Model Selection, Training and Validation )
- Deployment (API Development, Web Interface, Integration)
- Visualization and Reporting (Sentiment Trends, Dashboard, etc.)

# Defect Prediction Using Historical Data

- To develop a machine learning model that predicts the likelihood of defects in future software releases based on historical data, code changes, and developer activity..
- This tool will help software development teams focus their testing efforts on the most vulnerable areas of the codebase, improving software quality and reducing the number of post-release defects.

# Key Components

- Data Collection (Historical Data, Code Repositories, Developer Activity)
- Data Preprocessing (Data Cleaning, Feature Engineering, Labeling Data)
- Model Development (Feature Selection, Model Selection, Validation)
- Prediction and Evaluation (Predictive Analysis, Evaluation Metrics )
- Deployment (Integration, Visualization Dashboard, Alert System)