Estimating Crowds Based on Social Media

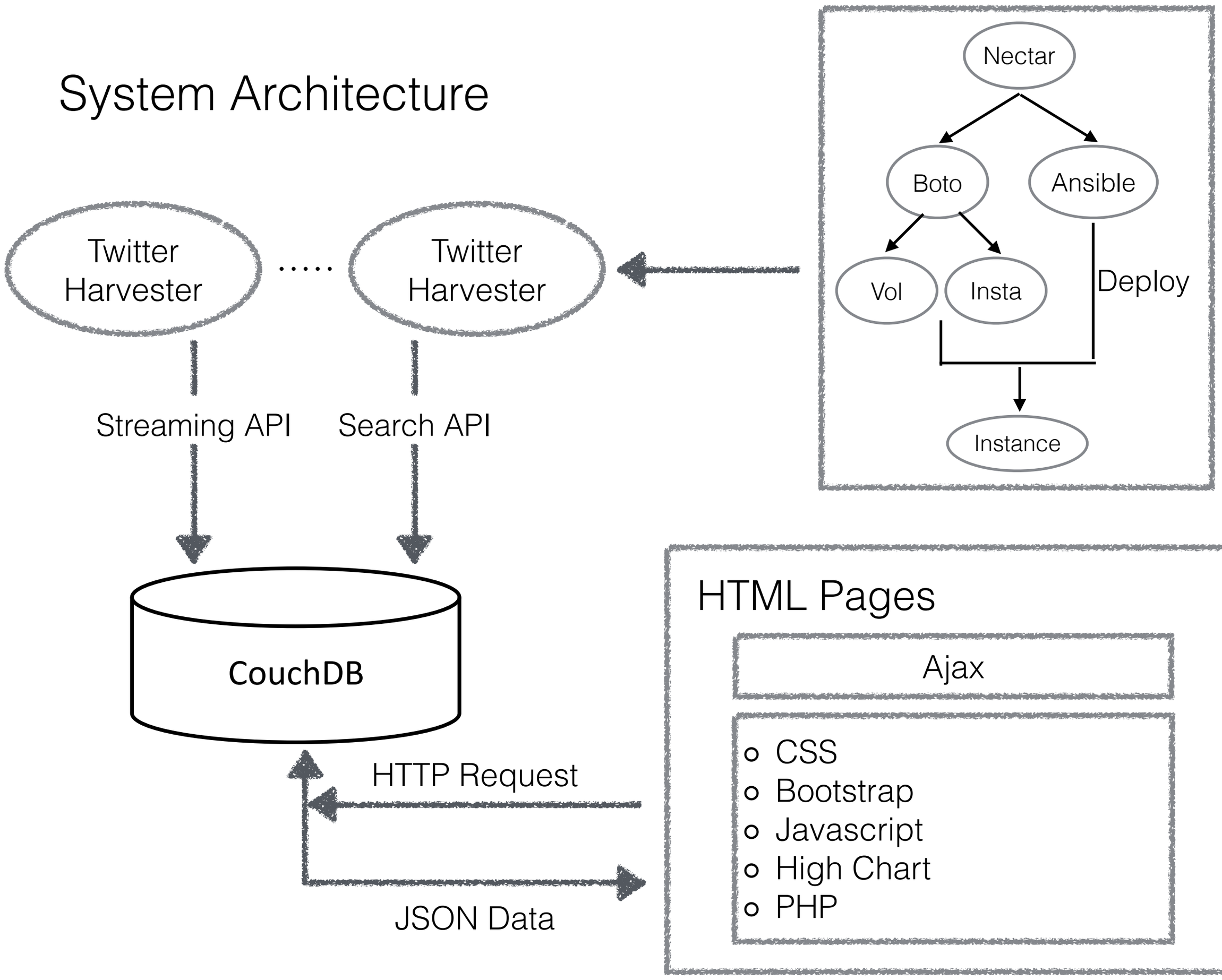
Name: Weijia Chen
StudentID: 616213
Supervisor: Prof Richard Sinnott

Contents

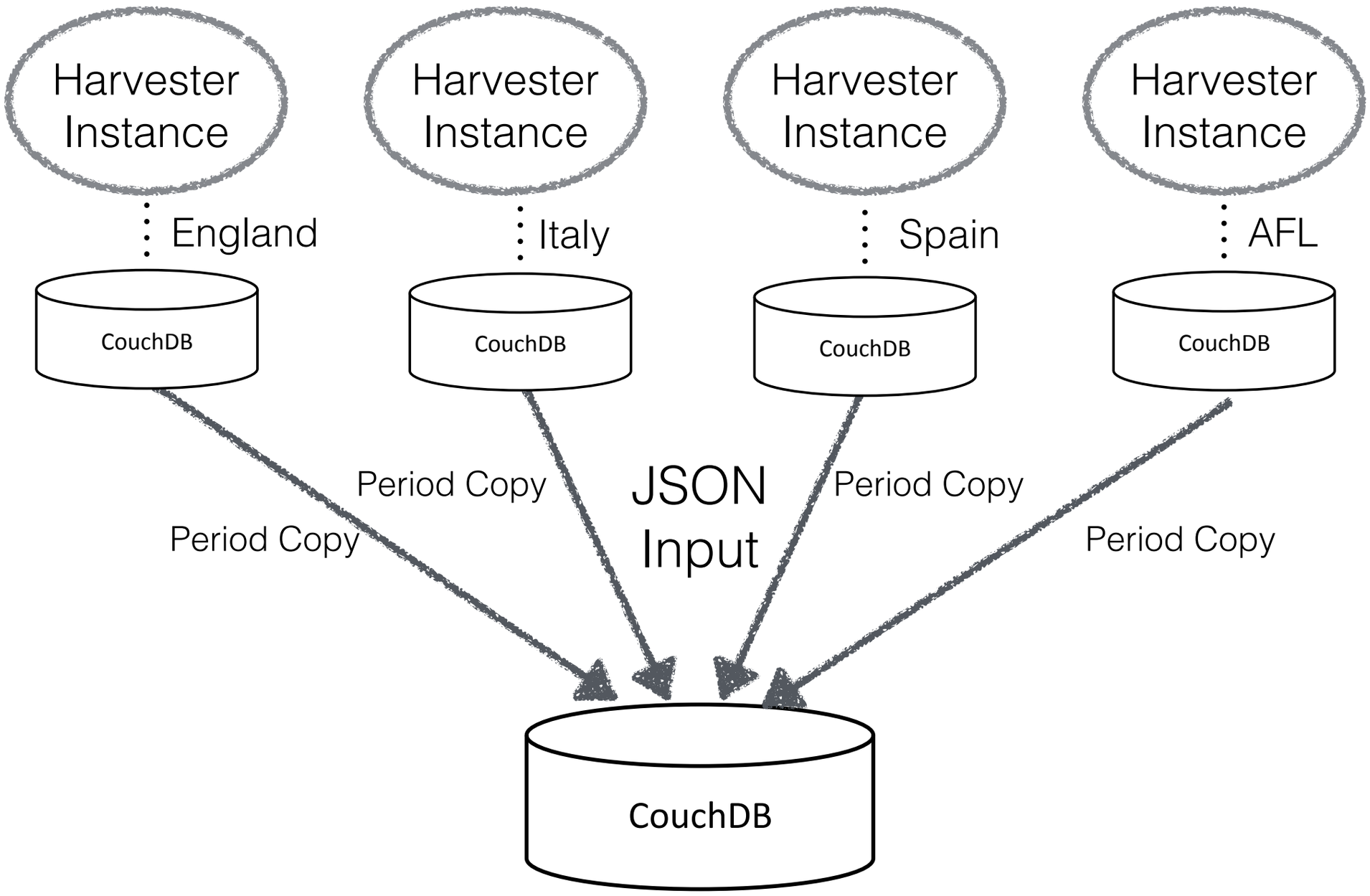
Background Introduction and Motivation

- Twitter is one of the most popular application that people tweets about their daily life
- The number of individuals in event crowds can be estimated based on the number of tweets compared with real attendance.

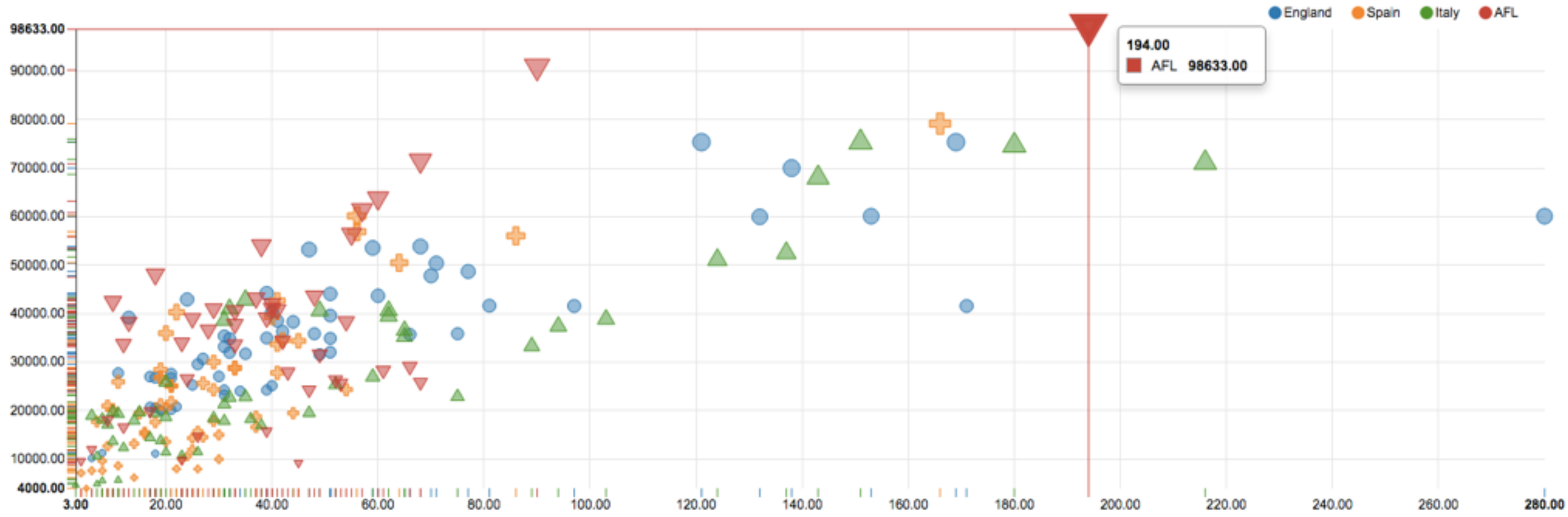
System Architecture



Harvester Distribution

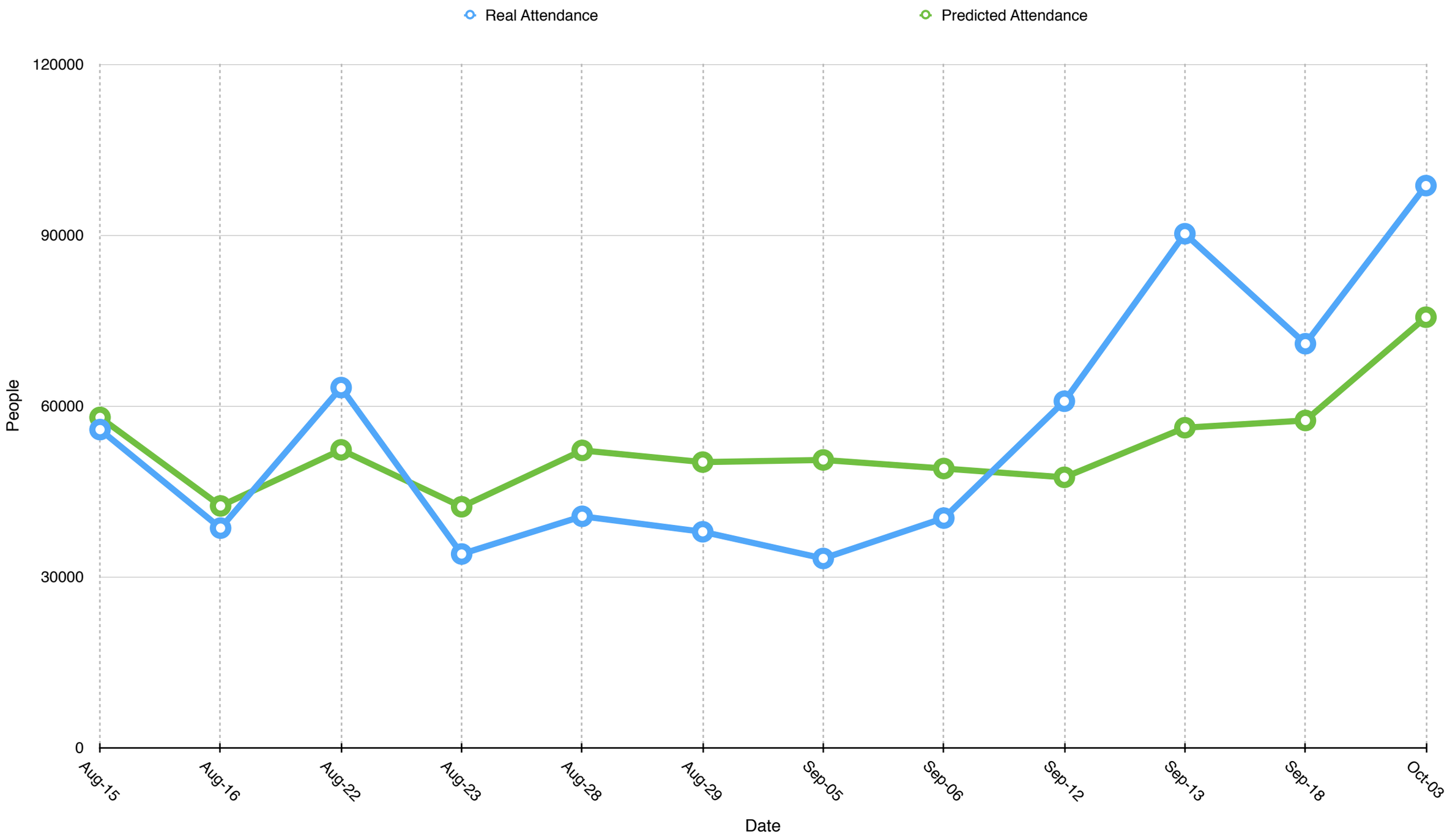


Data Presentation

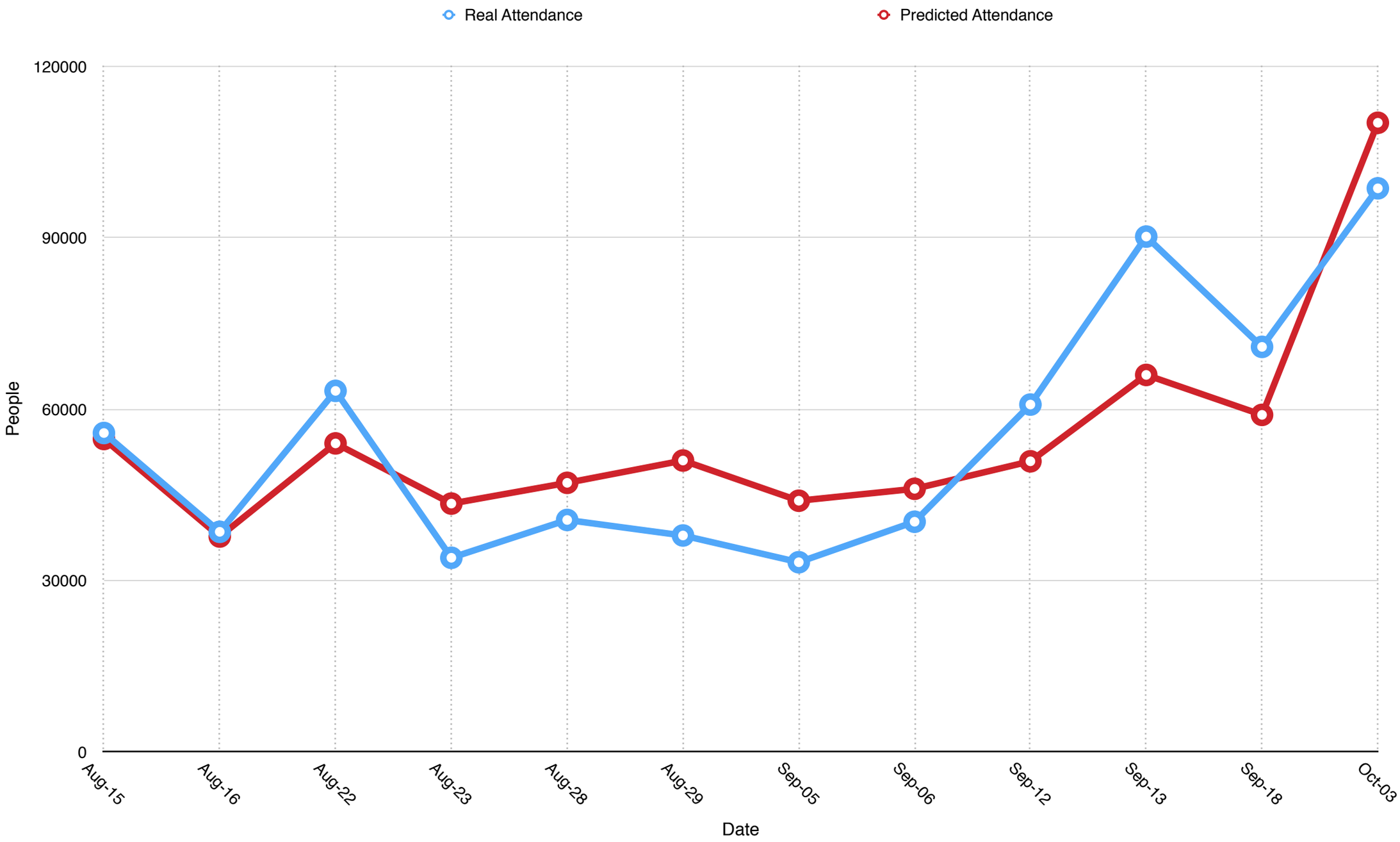


	England	**Spain**	**Italy**	**AFL**
Match	45	61	61	51
Attendance	36268	36220	42068	27721

Data Analysis
Melbourne Cricket Ground

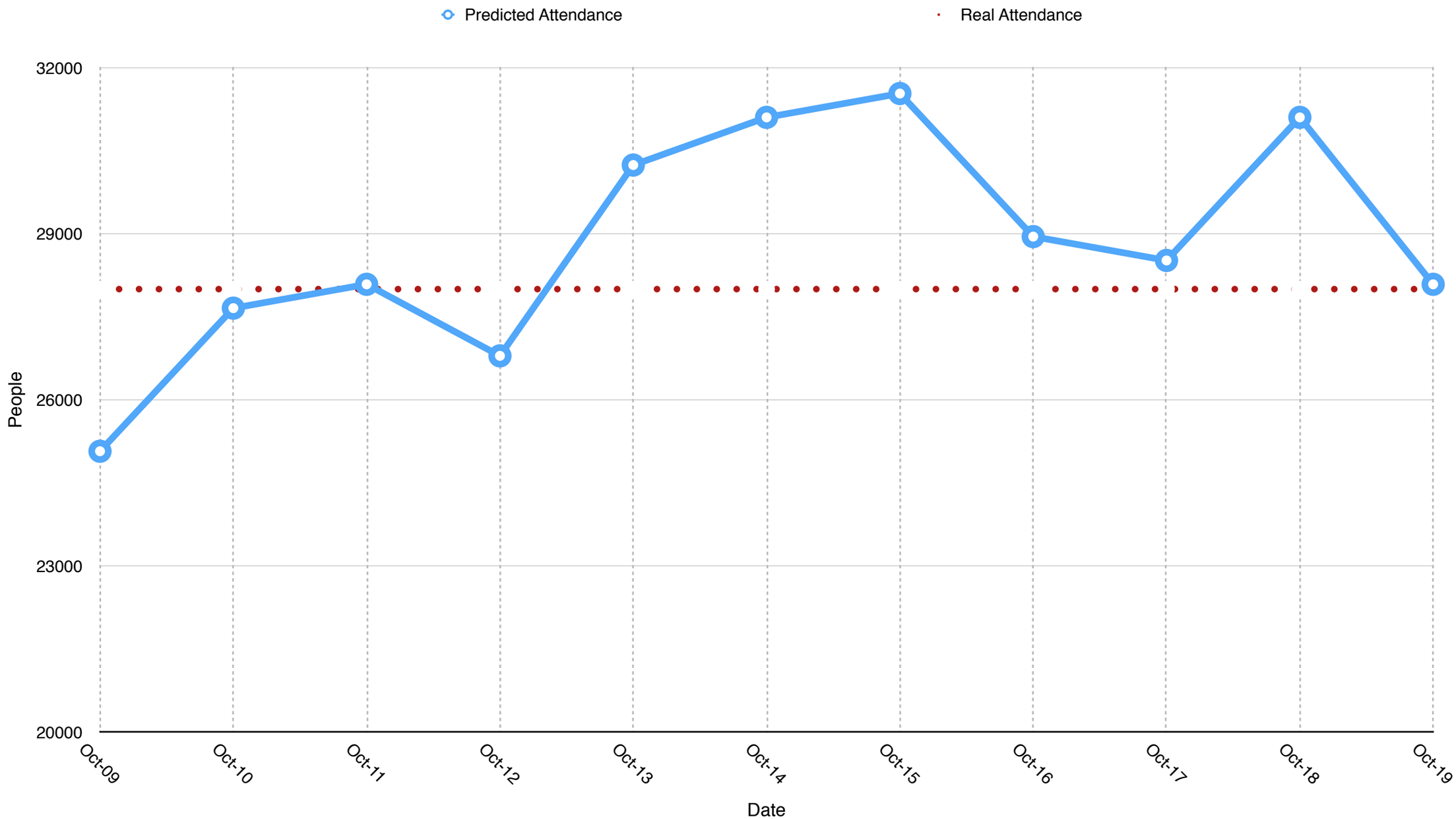


Data Improvement
Melbourne Cricket Ground

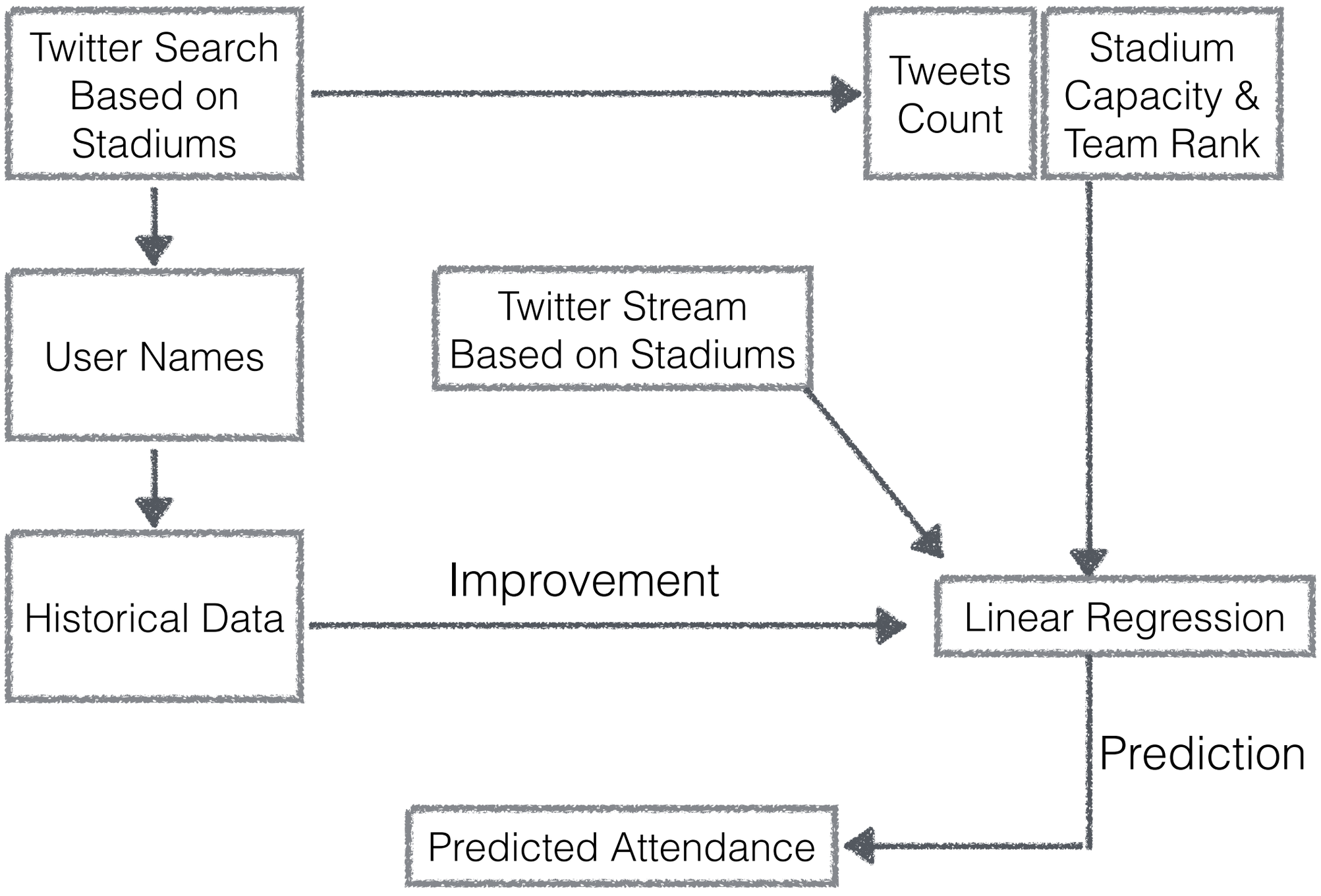


Model Implementation

Melbourne Airport



Flow Chart


Twitter Search Based on Stadiums
Tweets Count
Stadium Capacity & Team Rank
User Names
Twitter Stream Based on Stadiums
Historical Data
Improvement
Linear Regression
Prediction
Predicted Attendance

Website Demo

Conclusion

- The relationship between event crowd size and tweets number is obvious and predictable.
- Results can be improved by involving more social media resources.
- This estimation model can avoid unnecessary accident and attendance investigation.