Municipal of Sta. Cruz Sports Committee Program and Activity Monitoring System with Online Registration

Presented by

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Submitted to:
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Background and Initial Scope

- **Background:** Designed to streamline sports program management and online registration.

- **Scope:** Includes prediction of registration numbers, clustering analysis of participants, and comprehensive reporting.

Key Enhancements

Predictive Analytics: Machine learning-based prediction of future registration numbers.

System Integration: Modular approach with synchronized scripts for seamless operation.

Clustering Analysis: Identifies participant demographics and preferences for better service.

Data Quality Improvements: Data cleaning pipeline with imputation, outlier detection, and normalization.

Screenshots of System

MSCSUP

- Announcement
- Registered
- List of Registered
- Game Schedule
- Borrow Equipment
- Archives +
- Feedback
- Prediction Registration
- Clustering Results

Borrow Equipment

First Name

Last Name

Barangay

Please select

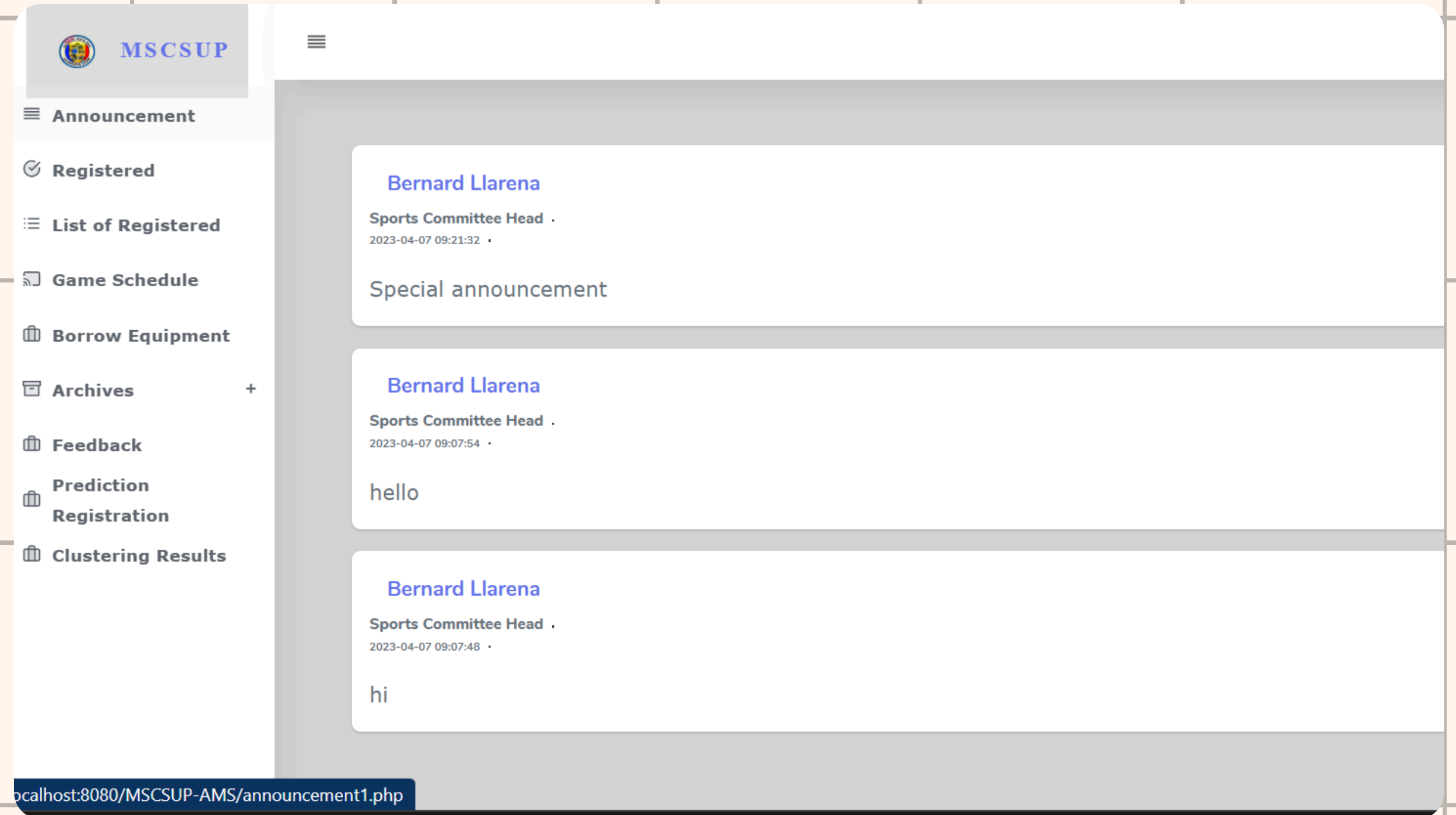Equipment/Item

Please select

Quantity

Date Return

dd/mm/yyyy

Request

Screenshots of System

MSCSUP

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Bernard Llarena

Sports Committee Head ·
2023-04-07 09:21:32 ·

Special announcement

Bernard Llarena

Sports Committee Head ·
2023-04-07 09:07:54 ·

hello

Bernard Llarena

Sports Committee Head ·
2023-04-07 09:07:48 ·

hi

localhost:8080/MSCSUP-AMS/announcement1.php

Screenshots of System

MSCSUP

- ☰ Announcement
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- ⊞ Feedback
- ⊞ Prediction Registration
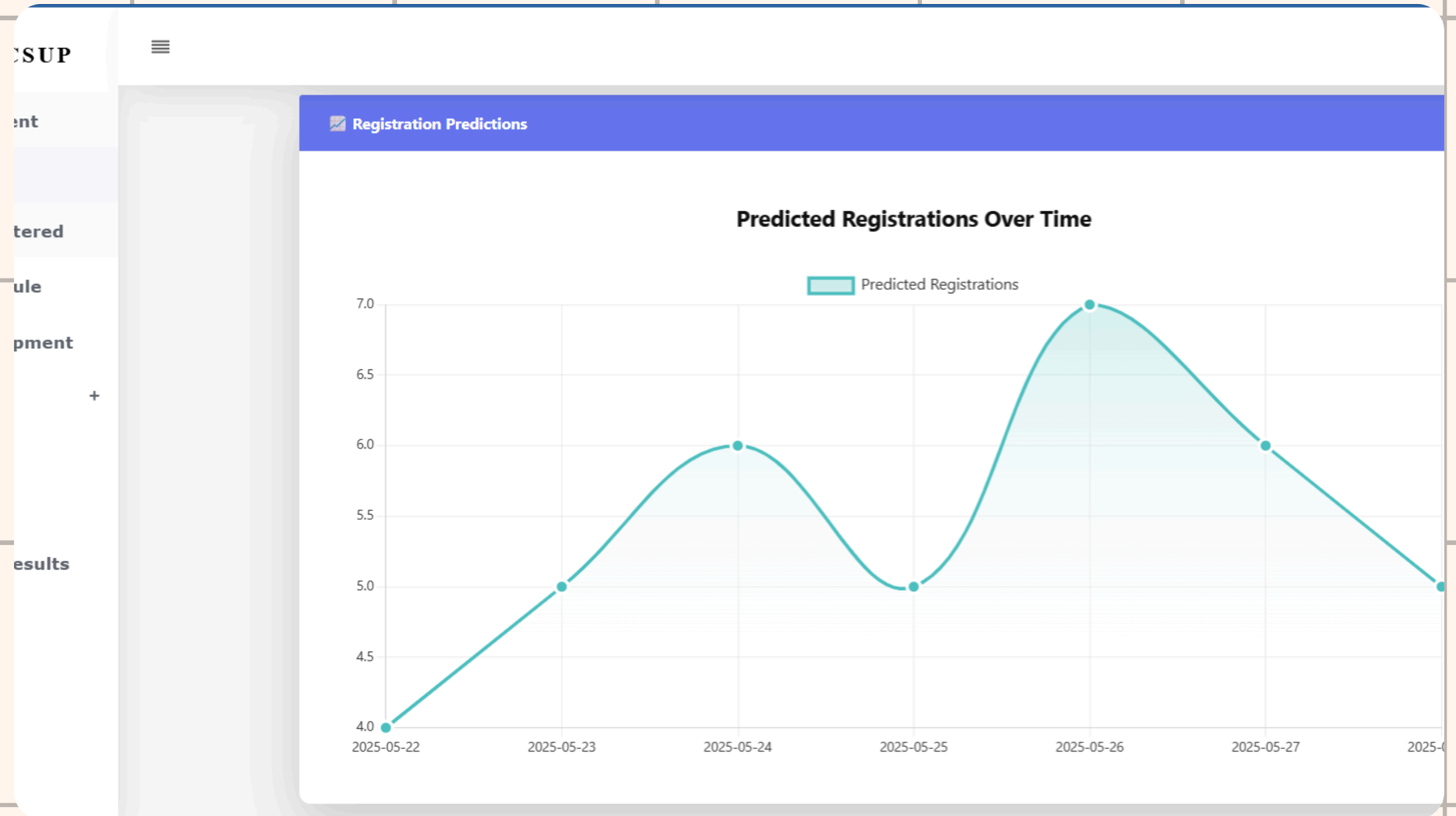- ⊞ Clustering Results

Registered

| Copy | Excel | CSV | PDF |

Search:

Registration No#	Lastname	Firstname	Middlename	Gender	Age	Sports	Barangay	Date Of Register	
11145	Bacube	Jake	B	Male	19 and above	Basketball	Palasan	2023-01-24	
11146	Olivete	Genesis	O	Male	19 and above	Table Tennis	Poblacion I	2023-01-24	
11147	Olivete	Genesis	O	Male	19 and above	Table Tennis	Poblacion I	2023-01-24	
11151	barrientos	lei	candelaria	Male	7-11 years old	Basketball	Poblacion IV	2025-04-27	
11152	barbadillo	brent	paran	Male	12-18 years old	Volleyball	Pagsawitan	2025-04-27	
11153	lei candelaria	brent	paran	Male	12-18 years old	Badminton	Poblacion I	2025-04-27	
11154	barbadillo	brent	paran	Male	19 and above	Badminton	Patimbao	2025-04-27	

Screenshots of System

CSUP

Registration Predictions

Predicted Registrations Over Time

Predicted Registrations
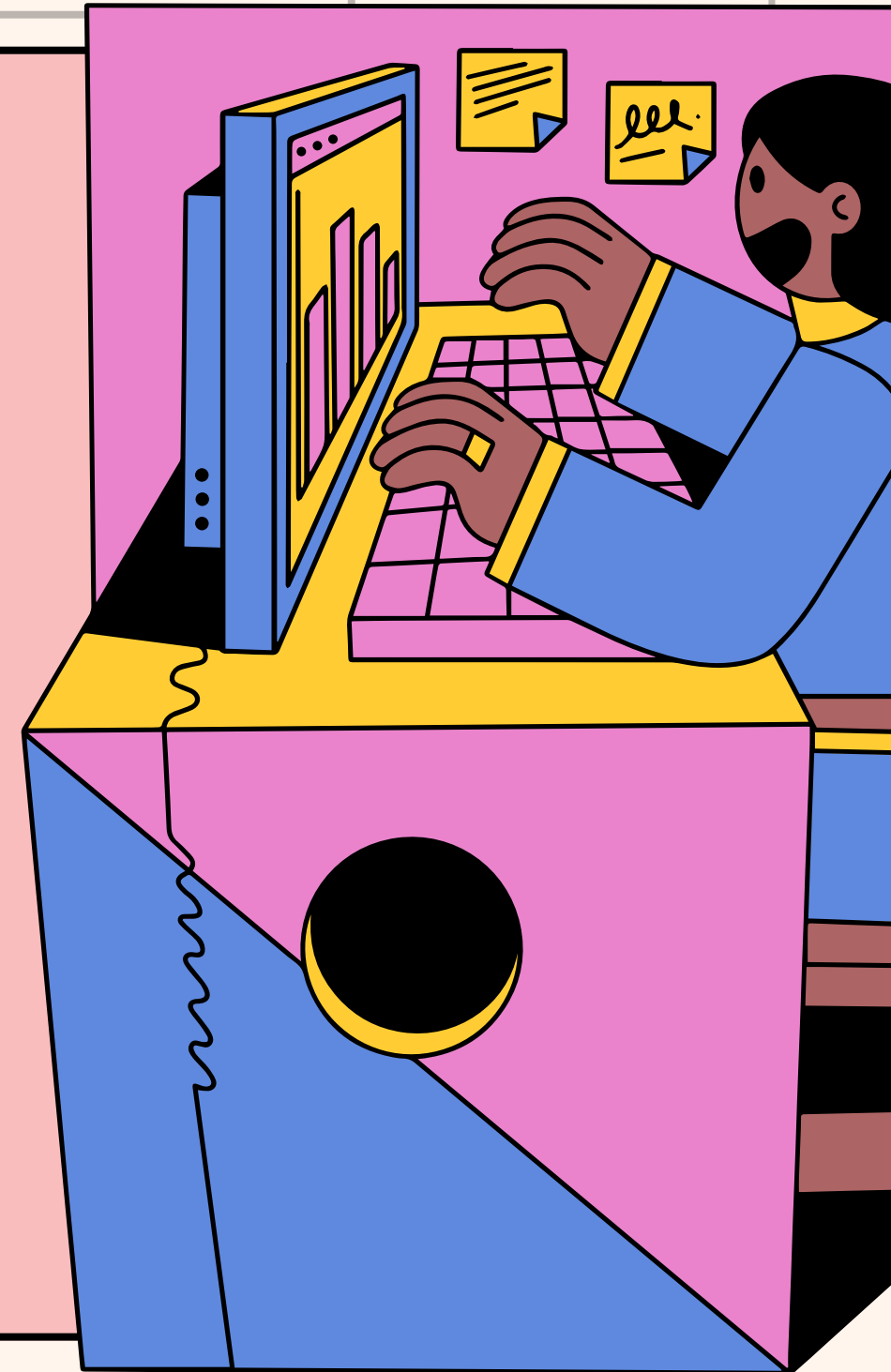
Lessons Learned

- **Data Management:** Importance of efficient handling of large datasets using sampling and optimization.
- **Data Quality:** Handling missing or inconsistent data to improve prediction credibility.
- **Integration Challenges:** Collaboration and modular coding improved integration of system components.
- **User Experience vs. Performance:** Balancing technical accuracy with user-friendly design through iterative testing.