Creating a Project Engagement Portal for WPI Students

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Introduction

WPI prioritizes **project-based learning (PBL)** in its curriculum, emphasizing hands-on problem-solving skills across disciplines. Projects frequently involve **surveys** of other students to obtain primary data from peers. However, common survey distribution methods collection face challenges such as selection bias and inefficiency.

As a solution, we propose a centralized survey portal: the **WPI Project Engagement Portal (WPI PEP).** By providing a single platform for survey distribution, this portal would **mitigate biases** and **streamline the data collection process.**

We aimed to design a prototype portal where WPI students can post and respond to class-related surveys. To accomplish this, we attempted to **understand** how WPI students interact with peer surveys, **evaluate** the portal's feasibility, and **plan and design** a prototype portal using Mendix, a low-code application development platform.

Key Survey Findings

We surveyed **137 students** (121 undergraduates and 16 graduates) to understand how the WPI community interacts with surveys. Our findings support the need for a centralized survey portal.
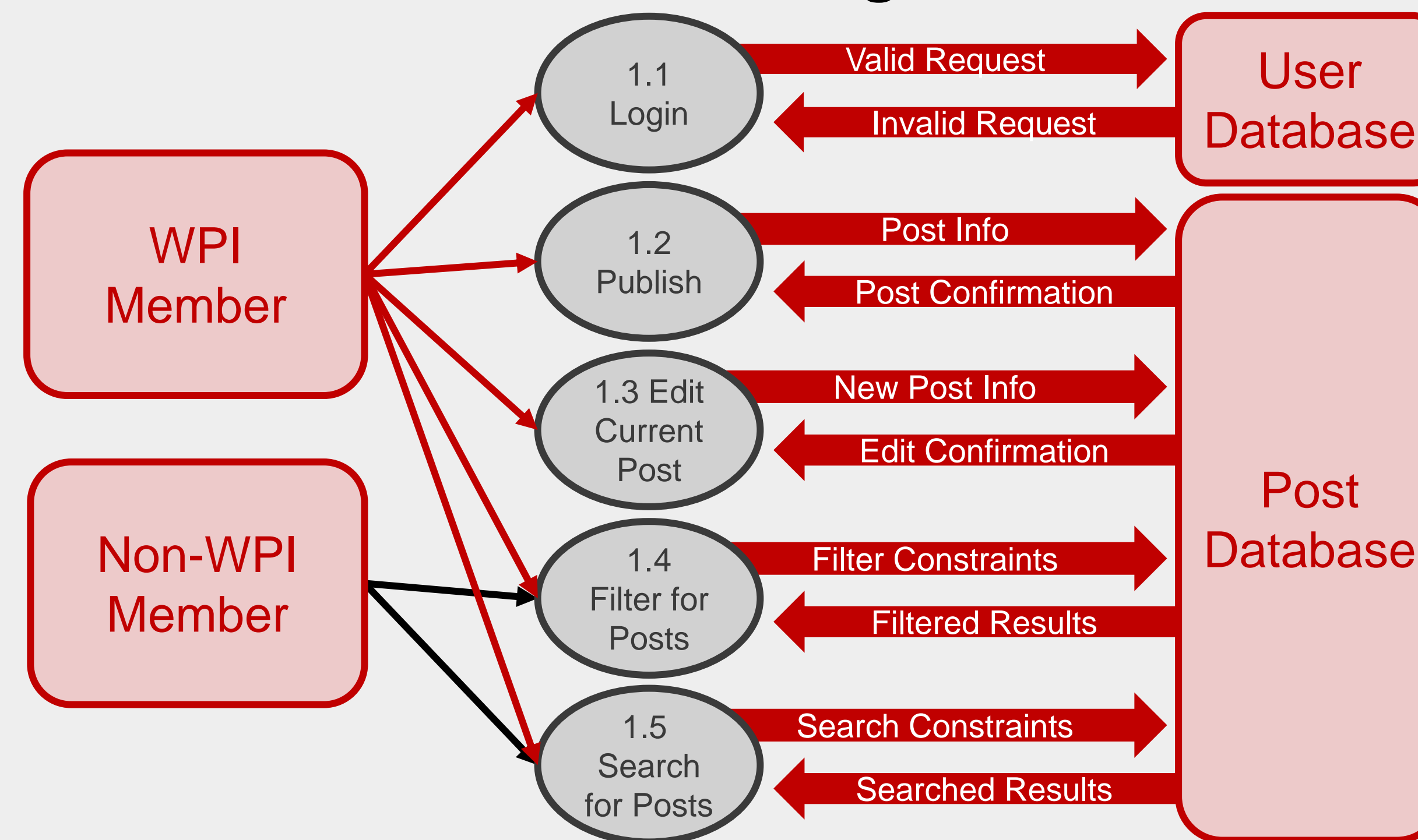
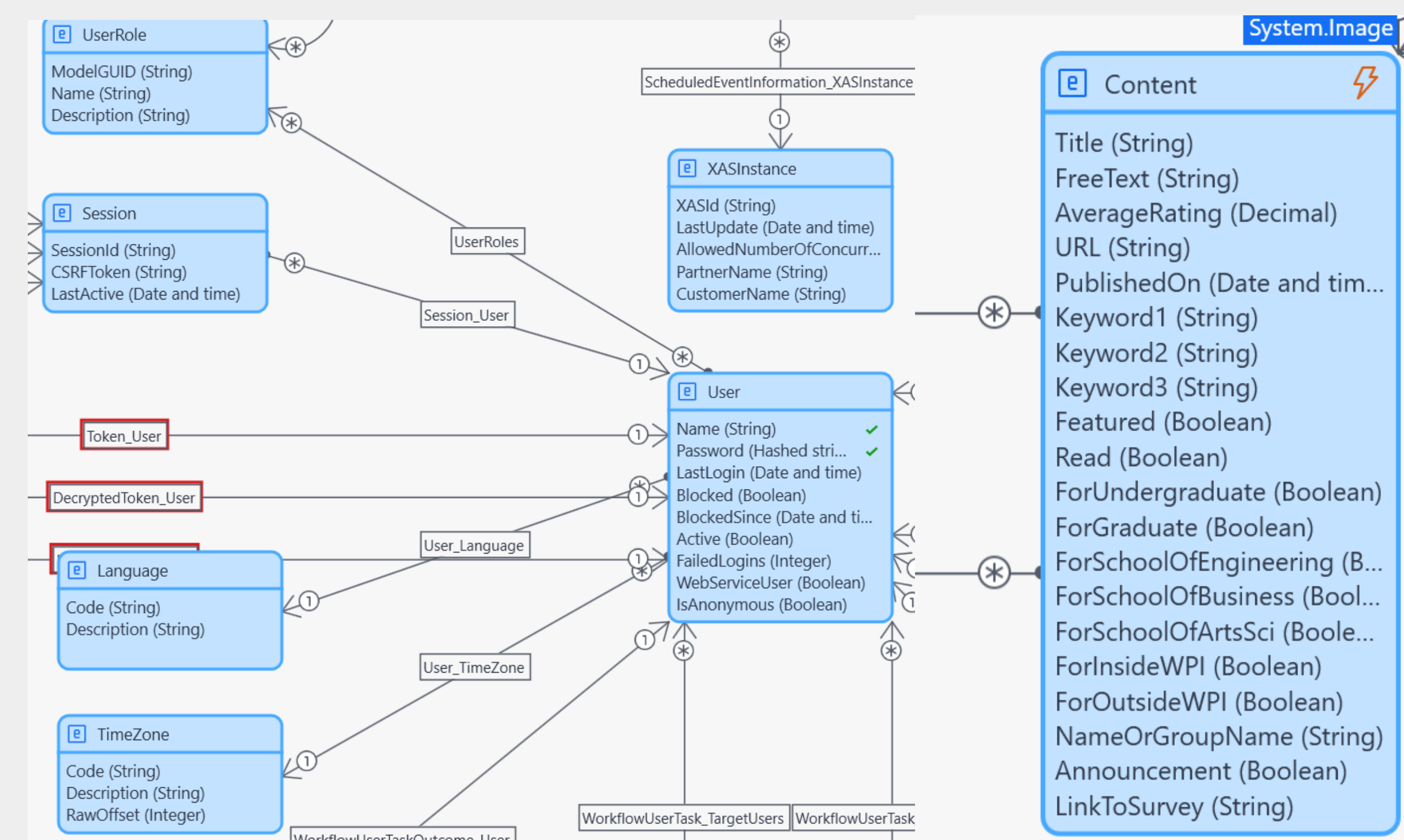**92%** of student respondents are **asked to complete multiple surveys** each academic year

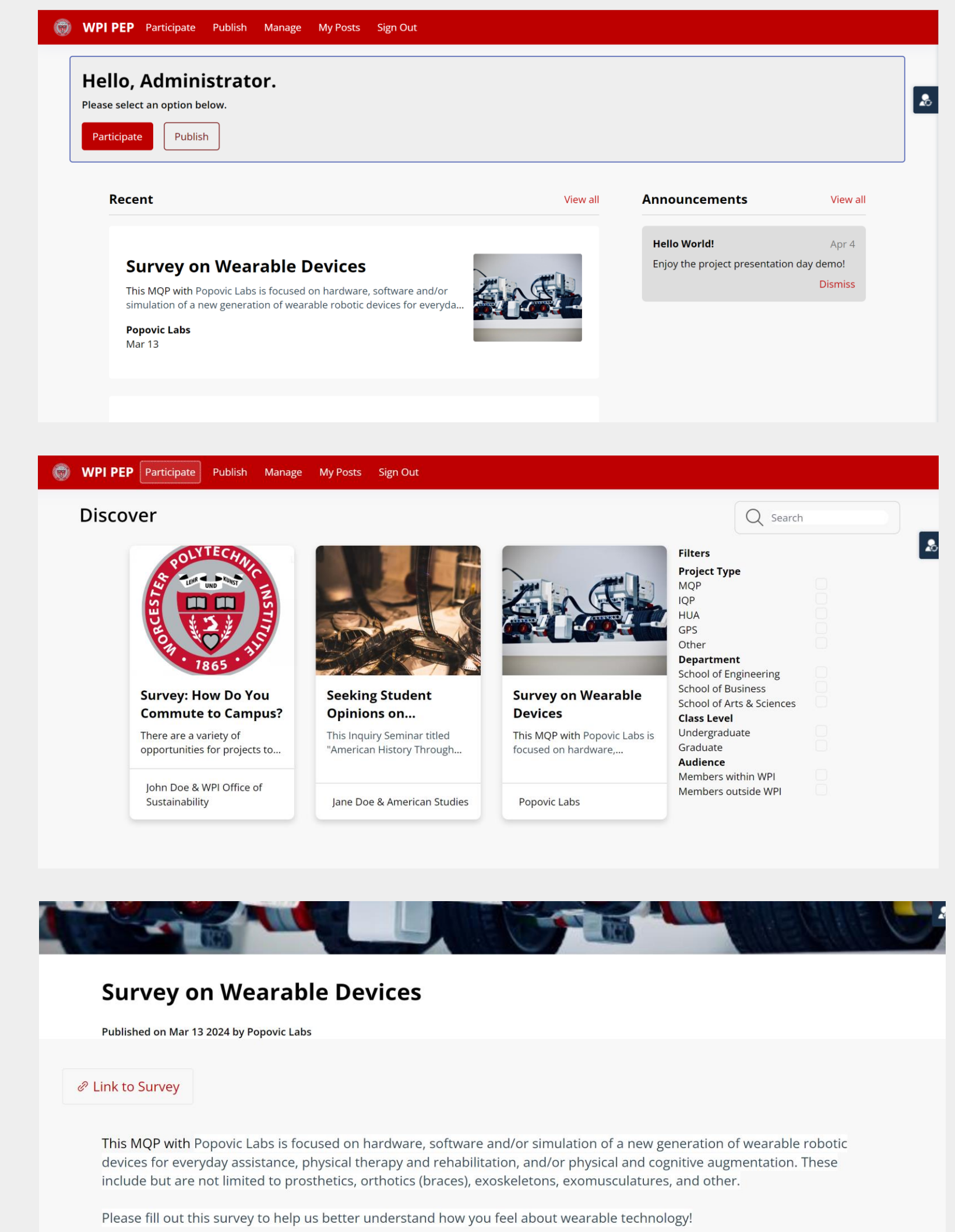**60%** of student respondents **conduct at least one survey** per academic year

System Design

Data Flow Diagram

Mendix Domain Model

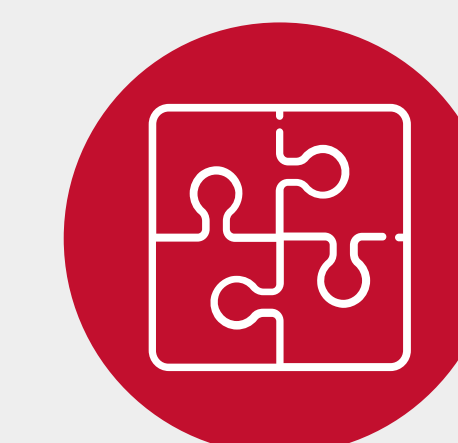**Scan the QR code to try out the demo!**

System Prototype

Future Considerations

To continue development of the WPI PEP, we recommend considering the addition of the following features:

Integration with existing WPI platforms such as eProjects, Canvas, and the WPI webpage

Implementation of **SSO login compatibility** (with assistance from IT Services)