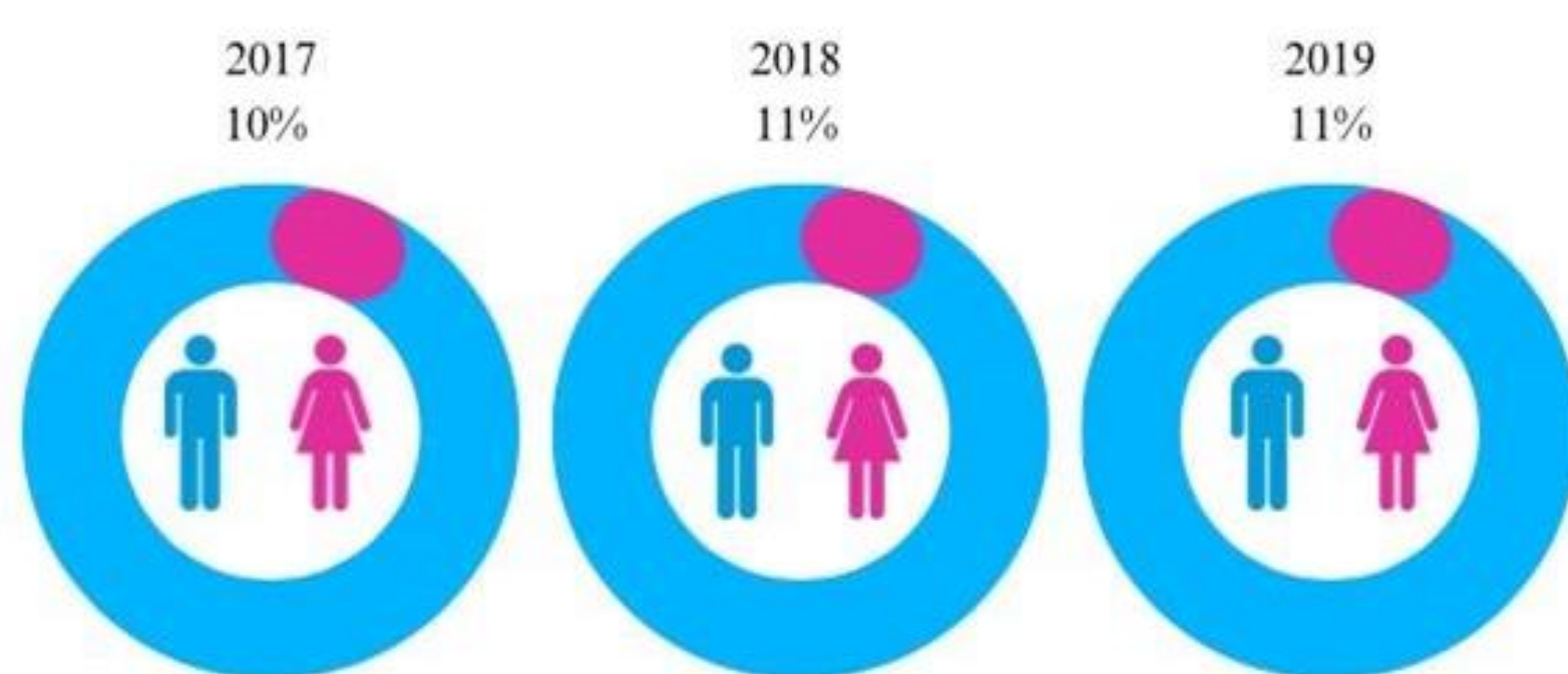# Developing a Central Repository for Gender Outcome Programs in STEMM

Team members: Jennifer Bonda, Matt Frayser, Dimayri Romero, Valencia Carter | **Faculty adviser:** Dr. John Leonard | **Sponsor:** Dr. Susan Kornstein, Dr. Molly Hyer | **Mentor:** Dr. Amy Olex

Problem Statement

Women are underrepresented in top positions across science, technology, engineering, mathematics and medicine sectors.

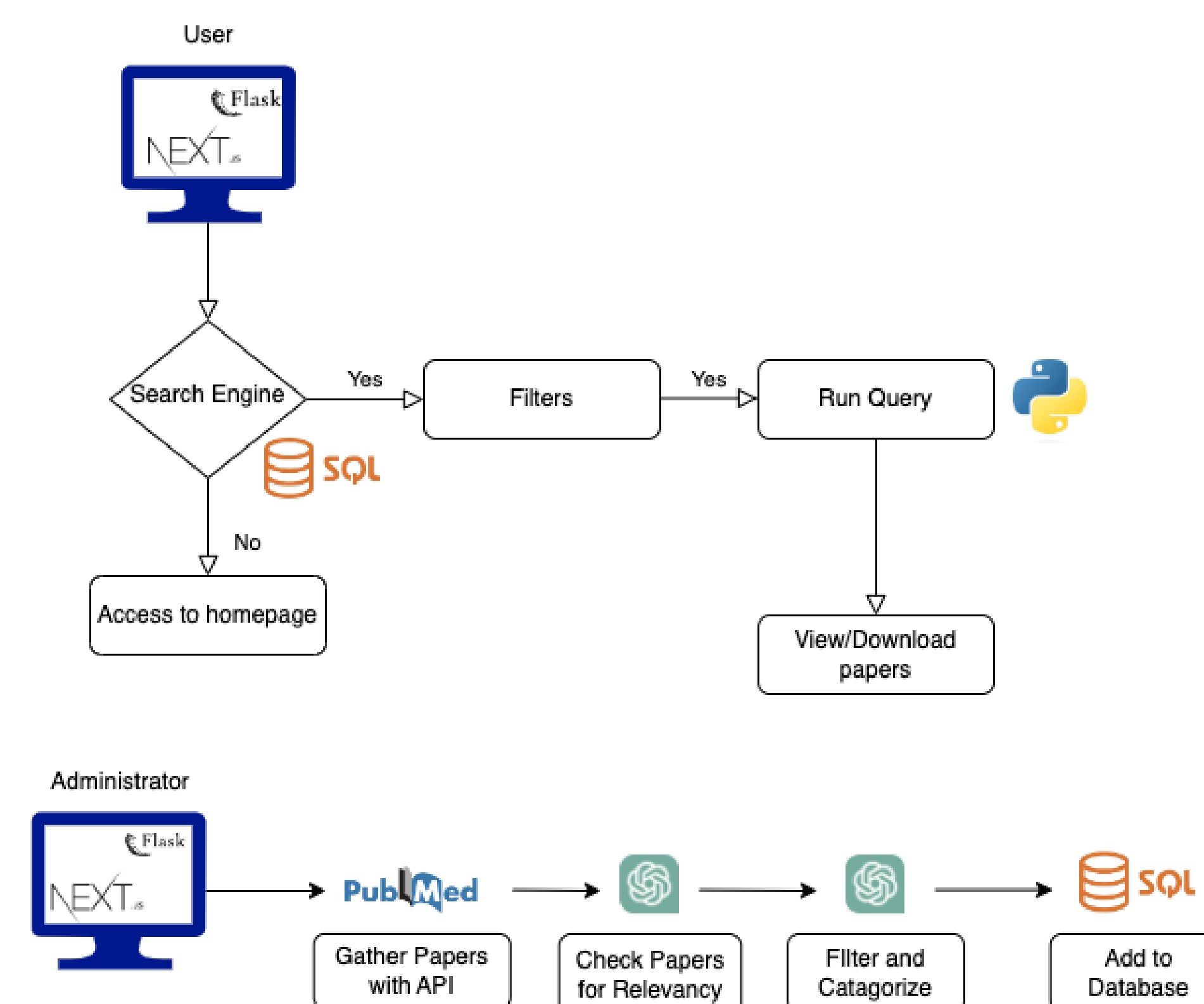2017 10%   2018 11%   2019 11%

Project Overview

Our project focuses on developing a centralized repository to promote gender diversity and equity within Science, Technology, Engineering, Mathematics, and Medicine (STEMM) fields. By consolidating resources, initiatives, and research, our goal is to foster collaboration, empower woman, and drive systemic change. Through backend database development, frontend interface design, and strategic connections, we aim to provide a comprehensive solution that addresses the unique challenges faced by underrepresented genders in STEMM.

User Interface Development

- **User Experience Focus:** Emphasized intuitive user experience for engagement. Frontend acts as bridge to repository for querying the MySQL database.
- **UI Design Considerations:** Prioritized accessibility, responsiveness, and navigation ease for diverse user engagement.
- **Key Components:** Developed search, dashboards, and advanced filters for enhanced interaction. Filtering each paper by category is automated using the OpenAI API and ChatGPT.

Impact and Outcomes

- **Identifying Suitable Programs:** Administrators will be able to easily identify programs for increasing gender equity in STEMM leadership positions specific to their institution.
- **Project Impact:** Instrumental in promoting gender diversity and equity within STEMM fields, setting the stage for impactful outcomes.
- **Positive Shift in Perceptions:** Initial feedback suggests a positive shift in perceptions surrounding gender diversity in STEMM, reflecting growing awareness and commitment to inclusivity.
- **Anticipated Advancements:** Anticipate tangible advancements in policies and practices aimed at fostering a more equitable environment as our project gains traction.
- **Mission Continuity:** Remain steadfast in our mission to cultivate a culture of diversity and inclusion, laying the groundwork for a more equitable future.

Future Directions

As we look ahead, our project aims to continue its impact and evolve to meet the changing needs of the STEMM community. Future directions include exploring avenues for expanding our centralized repository to encompass a broader range of disciplines and intersectional identities, ensuring inclusivity and representation across diverse fields. We also seek to enhance the platform's functionality by integrating advanced features such as machine learning algorithms for personalized recommendations and predictive analytics to identify emerging trends in gender diversity and equity. By embracing innovation, collaboration, and sustainability, we aspire to continue driving positive change and empowering women within the STEMM community for years to come.