CampusGives: A Student-Driven Solution to Address Unmet Academic and Financial Needs
Motivation

Higher education is often seen as a pathway to opportunity, yet for many students, financial struggles create significant barriers to academic success. While tuition and housing costs receive widespread attention, fewer discussions address the everyday academic and material needs of students. Textbooks, study materials, electronics, and dorm essentials are fundamental for learning, yet many students lack the financial means to afford them. Research consistently links financial insecurity to increased stress and declining academic performance (Tindle et al., 2022; Petersen, Louw, & Dumont, 2009). Many students resort to loans, part-time jobs, or peer assistance to meet their needs, but these strategies are often inadequate, forcing students to make trade-offs that harm their education.

Beyond financial hardship, the psychological impact of resource scarcity further undermines students' ability to perform well. Studies indicate financial stress weakens cognitive function, reduces motivation, and impairs concentration (Destin & Svoboda, 2017). Students facing financial distress often struggle with time management, working memory, and academic engagement, all of which affect their ability to complete coursework effectively (Reid, Jessop, & Miles, 2020). Even those receiving financial aid find that grants and stipends do not fully cover essential academic expenses (Huang et al., 2018). This often leads students to take on additional work hours, reducing study time, increasing stress, and perpetuating a cycle that impairs long-term academic success.

Despite these challenges, most university assistance programs focus on financial aid rather than directly addressing students' material needs. Existing solutions rarely provide free, immediate access to essential academic and living supplies, leaving students without the resources required to thrive. CampusGives seeks to bridge this gap by providing a student-driven platform where individuals can list and request items within their campus community. This initiative not only promotes sustainability by redistributing underused resources but also fosters a peer-supported ecosystem that reduces financial barriers in higher education. By enabling students to support one another, CampusGives presents a practical, community-driven solution to a persistent and overlooked problem.

Target Population
The primary beneficiaries of CampusGives are college and university students who face financial challenges in acquiring essential academic and living supplies. This includes students from low-income backgrounds, first-generation college students, and those who rely on financial aid or part-time employment to cover their expenses. The platform specifically aims to support students struggling with textbook costs, access to technology (laptops, calculators), dorm essentials, and other study-related materials.

As a pilot initiative, CampusGives will be launched at the University of Texas at Dallas (UTD), where student demand for affordable academic resources is evident. UTD, with its diverse student body, including a significant population of international students, presents an ideal testing ground for this platform. The pilot phase will allow for user feedback, refinement of system features, and

assessment of impact, ensuring that the platform effectively meets students' needs before expanding to other universities.

Additionally, CampusGives fosters a peer-to-peer support system, encouraging students with surplus academic materials or dorm supplies to share them with those in need. This not only promotes resource redistribution but also builds a stronger sense of community and mutual support among students.

Beyond individual students, the platform can also benefit student organizations, campus sustainability initiatives, and university welfare offices, providing them with a structured system to facilitate the redistribution of resources efficiently.

Methodology

The CampusGives platform will be designed as a structured, SQL-based database system that facilitates the seamless exchange of essential academic and living resources among students. The system will follow relational database principles to ensure data integrity, efficient querying, and scalability.

1. **System Architecture**

CampusGives will be a web-based application that enables students to list, request, and exchange items in a structured manner. The platform will consist of:
- A frontend interface for user interactions.
- A backend database for storing and managing item listings, transactions, and user data.
- A secure authentication system to prevent unauthorized access.
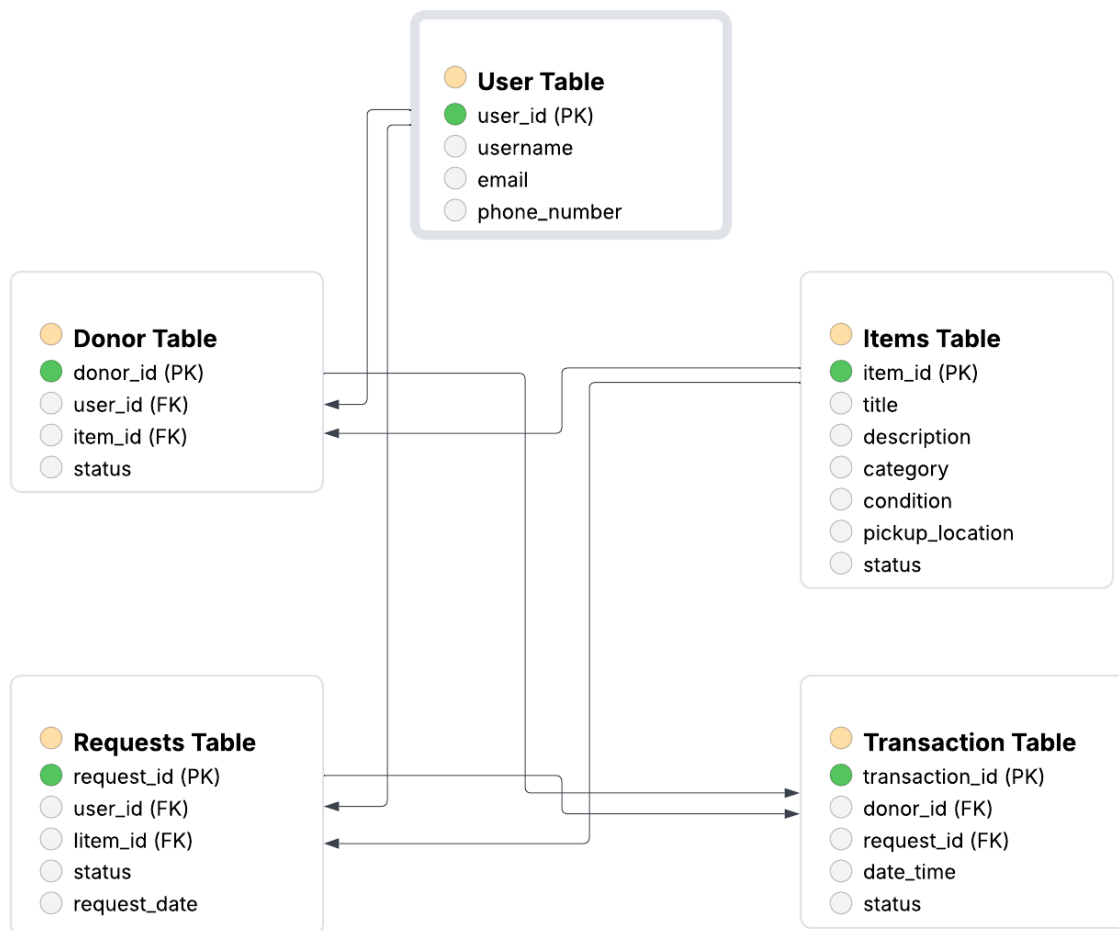
2. Database Design

The system will be built using a relational database model, ensuring efficient storage and retrieval of records. The primary tables include:
- Users Table: Stores student details (e.g., `user_id` as Primary Key (PK), `name`, `email`, `university_affiliation`).
- Donor Table: Tracks listed items (`donor_id` as Primary Key (PK), `item_id`, `title`, `category`, `condition`, `user_id` as Foreign Key (FK) referencing Users).
- Requests Table: Manages item requests (`request_id` as PK, `user_id` as FK referencing Users, `item_id` as FK referencing Items).
- Items Table: Holds details about donated items (`items_id` as PK).
- Transactions Table: Records successful exchanges (`transaction_id` as PK, `request_id` as FK, `status`).

3. User Workflow

1. Item Listing: Students list available items with descriptions, conditions, and pickup preferences.
2. Item Search & Requests: Other students browse items and request those they need.
3. Exchange Coordination: Once a request is accepted, a transaction record is created.
4. Security & Verification: Only verified university-affiliated users can list or request items.

Figure 1: Schema Diagram for CampusGives Data Base

User Table
- user_id (PK)
- username
- email
- phone_number

Donor Table
- donor_id (PK)
- user_id (FK)
- item_id (FK)
- status

Items Table
- item_id (PK)
- title
- description
- category
- condition
- pickup_location
- status

Requests Table
- request_id (PK)
- user_id (FK)
- litem_id (FK)
- status
- request_date

Transaction Table
- transaction_id (PK)
- donor_id (FK)
- request_id (FK)
- date_time
- status

Expected Impact

CampusGives aims to ease financial burdens by providing a free, student-led resource exchange that:

- **Reduces Financial Stress** – Enables students to access essential items at no cost.
- **Improves Academic Success** – Ensures availability of study materials, enhancing performance.
- **Fosters Community** – Promotes generosity and peer collaboration.
- **Supports Sustainability** – Encourages resource reuse, minimizing waste.

By bridging the gap between financial aid and material support, CampusGives ensures students have the resources they need to succeed.

Conclusion

CampusGives offers an immediate, practical solution to student financial challenges by facilitating peer-driven resource sharing. Unlike traditional aid, it provides direct, tangible support, ensuring all students can pursue education without financial strain.