Basement Dwellers

KAPP Application
Use-Case Specifications

Version <1.2>

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Use-Case Specifications

1. Use-Case Model

1.1 Introduction

KAPP allows students to be able to access an interface with multiple different features relating to the university. KAPP will focus on providing an interactive map for students to view on campus events. This document will provide an overview of the use cases developed in the KAPP system.

1.2 General Actors Descriptions

1.2.1 User

Either a KU student or KU faculty member. User sign-in is handled by the KU single sign-on.

1.2.2 KU Single Sign-On

Sign-on process handled by KU servers.

1.2.3 KAPP Database

Internal database used to store information such as user schedules and grades.

1.3 Use-Case Model Hierarchy

1.3.1 <Single Sign On>

- **Description**

This use case allows the user to sign into their KAPP account using the KU Single Sign On system.

- **Use Cases**
  - SSO (Single Sign On)
- **Actors**
  - Faculty/Student
- **Relationships**
  - Association between Faculty/Student with SSO. Faculty/Student interact with the SSO by entering their login information.
- **Packages Owned**
  - None

1.3.2 <Schedule Builder>

- **Description**

This use case describes the functionality of the Schedule Builder within the KAPP application

- **Use Cases**
  - KU Course Catalog
  - List of classes
  - Add Class
  - Remove Class
- **Actors**
  - Faculty/Student
  - KAPP Database
- **Relationships**
  - Association between Faculty/Student and KU Course Catalog
  - Association between Faculty/Student and list of classes
  - Association between list of classes and KU course catalog
  - Extend relationship between list of classes and add class
  - Extend relationship between list of classes and remove class

- **Packages Owned**
  - None

1.3.3 <Map>

- **Description**
  - This use case describes the functionality of the Interactive Map within the KAPP application
- **Use Cases**
  - Map
  - Mark events on map
  - Mark building names on map
- **Actors**
  - Faculty/Student
  - Map API
- **Relationships**
  - Association between Faculty/Student and Map
  - Include relationship between Map and Mark events on map
  - Include relationship between Map and Mark building names on map
  - Association between Map and Map API
- **Packages Owned**
  - None

1.3.4 <Events>

- **Description**
  - This use case describes the functionality of the list of events within the KAPP application
- **Use Cases**
  - List of Events
  - Search for events online
  - Display events
- **Actors**
  - Faculty/Student
- **Relationships**
  - Association between Faculty/Student and List of Events
  - Include relationship between list of events and search for events online
  - Include relationship between list of events and display events
- **Packages Owned**
  - None

1.3.5 <Contact>

- **Description**
  - This use case describes the functionality of the contact developers feature
- **Use Cases**
  - Contact
  - Write Message
  - Send to development team
- **Actors**
  - Faculty/Student
- **Relationships**
  - Association between Faculty/Student and Contact
  - Include relationship between contact and write message
  - Include relationship between contact and send to development team
- **Packages Owned**
  - None

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1.3.6 <Degree Progress>

- **Description**
  - This use case describes the functionality of the degree progress feature
- **Use Cases**
  - Degree Progress
  - Get Report
- **Actors**
  - Faculty/Student
  - KU Database
- **Relationships**
  - Association between Faculty/Student and Degree Progress
  - Include relationship between degree progress and get report
  - Association between KU database and Get report
- **Packages Owned**
  - None

1.3.7 <GPA Calculator>

- **Description**
  - This use case describes the functionality of the GPA Calculator feature
- **Use Cases**
  - GPA Calculator
  - Input Classes & Grades
  - Calculate GPA
- **Actors**
  - Faculty/Student
- **Relationships**
  - Association between Faculty/Student and GPA Calculator
  - Include Relationship between GPA Calculator and Input Classes & Grades
  - Extend Relationship between GPA Calculator and Calculate GPA
- **Packages Owned**
  - None

---

2. <Single Sign On>

2.1 Brief Description

This use case allows the user to sign into their KAPP account using the KU Single Sign On system.

2.2 Flow of Events

2.2.1 Basic Flow

When requesting to log into KAPP a request is sent to the KU database in order to be verified to be logged in.

2.2.2 Alternative Flows

None.

2.3 Special Requirements

2.3.1 <Having a KU student account>

2.4 Preconditions

2.4.1 < *Internet Connection*>

2.5 Postconditions

2.5.1 <Successful Sign-in>

2.6 Extension Points

None

2.7 Use-Case Diagrams

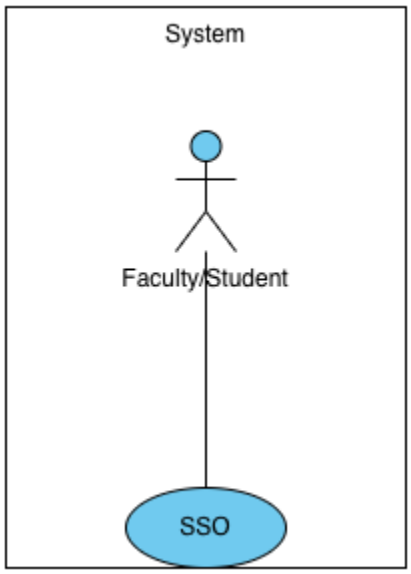

Figure 1

2.8 Other Diagrams

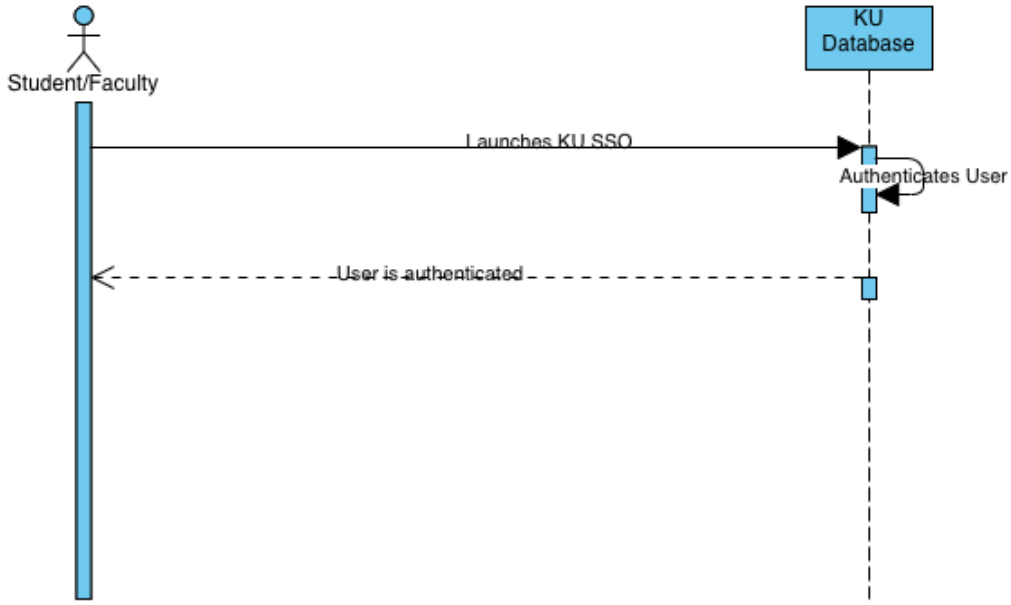

Figure 2

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3. <Schedule Builder>

3.1 Brief Description

This use case allows the user build their schedule

3.2 Flow of Events

3.2.1 Basic Flow

User is presented with list of courses from KU course catalog and adds chosen classes to the schedule

3.2.2 Alternative Flows

If the user's schedule is in-progress, they will be directed to their schedule immediately. They can still add classes from the course catalog

3.3 Special Requirements

3.3.1 <Having a KU student account>

3.4 Preconditions

3.4.1 <Internet *Connection*>

3.5 Postconditions

3.5.1 None

3.6 Extension Points

None

3.7 Use-Case Diagrams

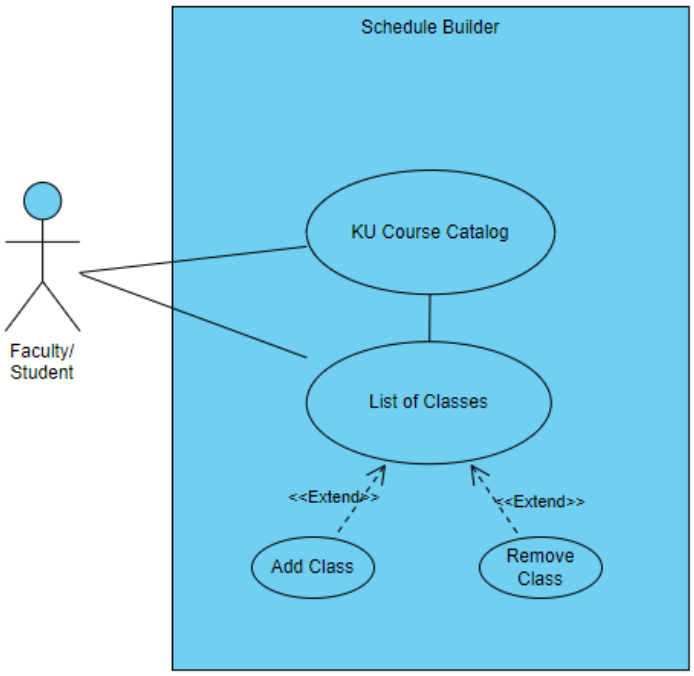

Figure 3

3.8 Other Diagrams

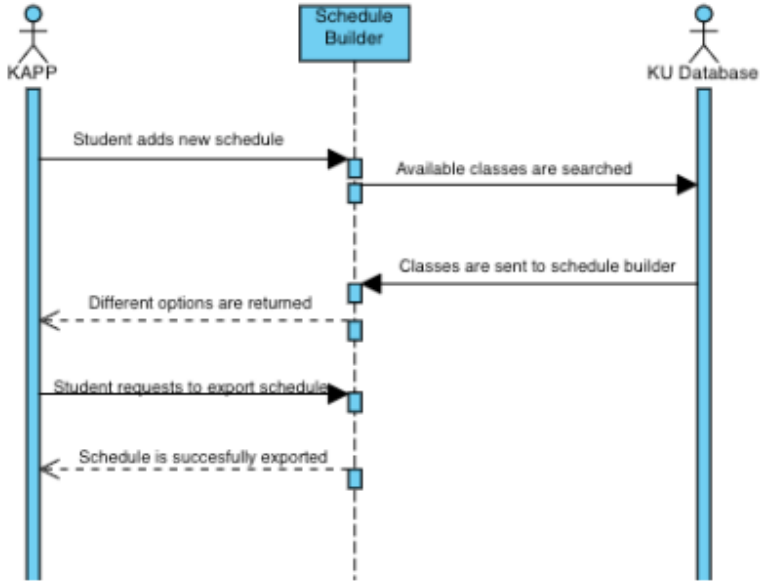

Figure 4

4. <Map>

4.1 Brief Description

This use case allows the user to interact with a map of KU campus.

4.2 Flow of Events

4.2.1 Basic Flow

When a user opens the map, it'll show the entire campus. They will then be able to interact with the map to move in and out of smaller areas.

4.2.2 Alternative Flows

None.

4.3 Special Requirements

4.3.1 None.

4.4 Preconditions

4.4.1 *<Internet Connection>*

4.4.2 <Signed In>

4.5 Postconditions

4.5.1 None

4.6 Extension Points

None

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4.7 Use-Case Diagrams

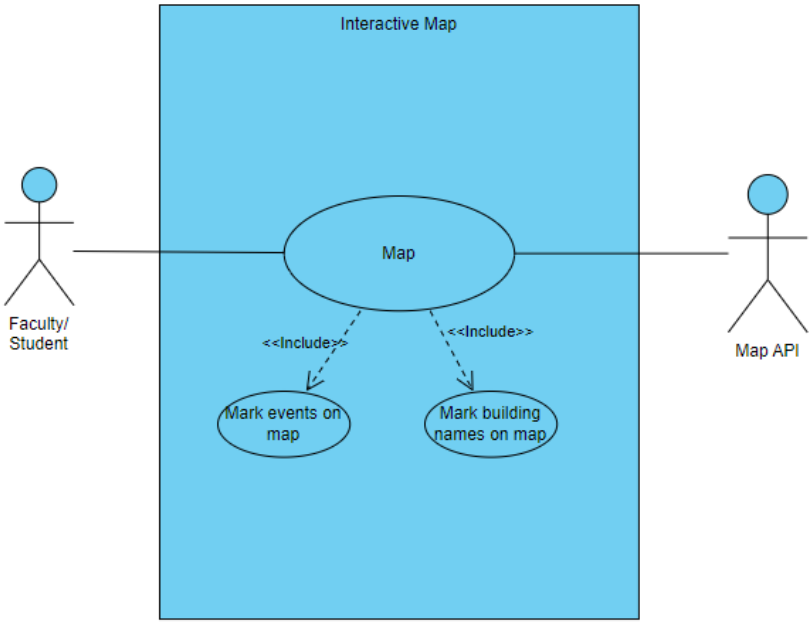

Figure 5

4.8 Other Diagrams

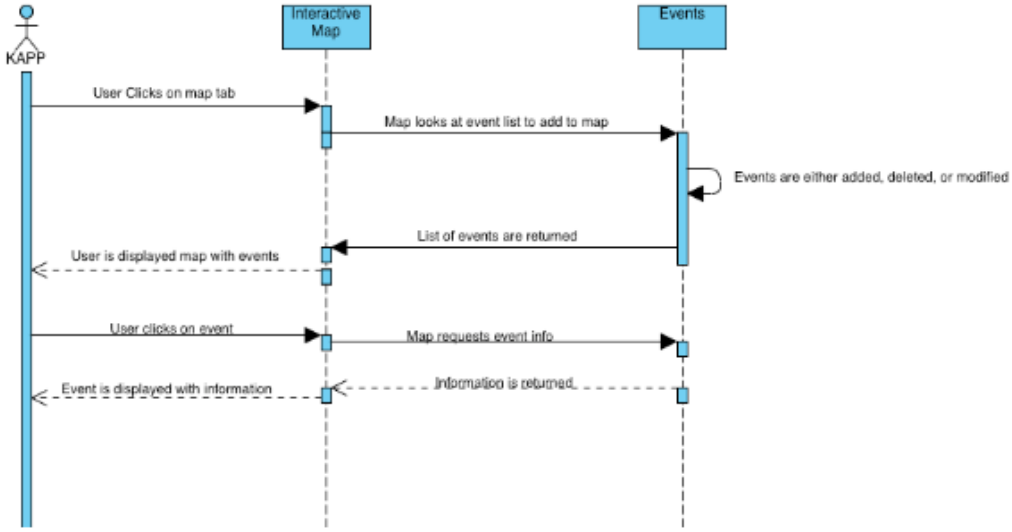

Figure 6

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5. <Events>

5.1 Brief Description

This use case is a way for a user to see a list of all the events happening at the University.

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5.2 Flow of Events

5.2.1 Basic Flow

When a user opens the events view, they'll be presented with a full, scrolling list of all events at the University. They can filter it down from there.

5.2.2 Alternative Flows

None.

5.3 Special Requirements

5.3.1 None.

5.4 Preconditions

5.4.1 *<Internet Connection>*

5.4.2 <Signed In>

5.5 Postconditions

5.5.1 None

5.6 Extension Points

None

5.7 Use-Case Diagrams

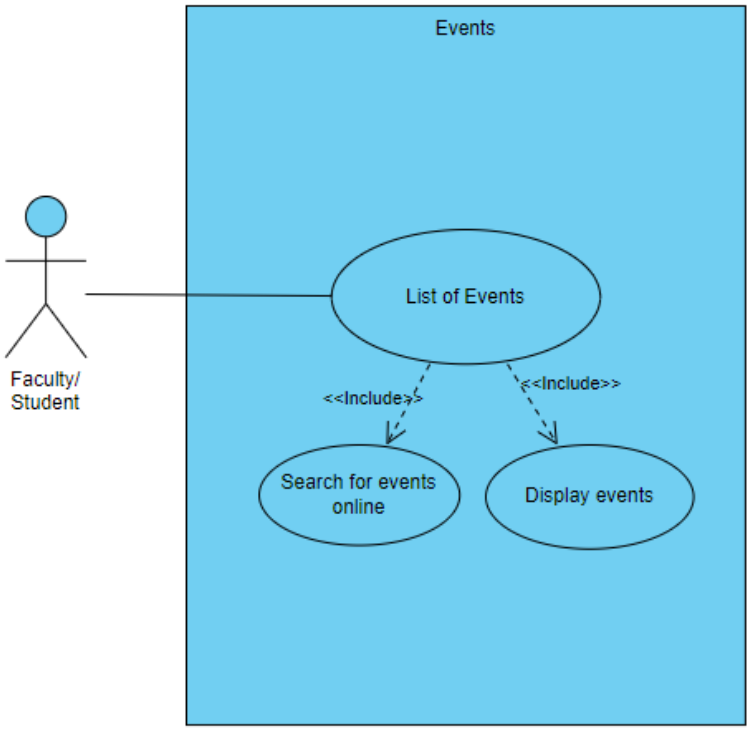

Figure 7

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5.8 Other Diagrams

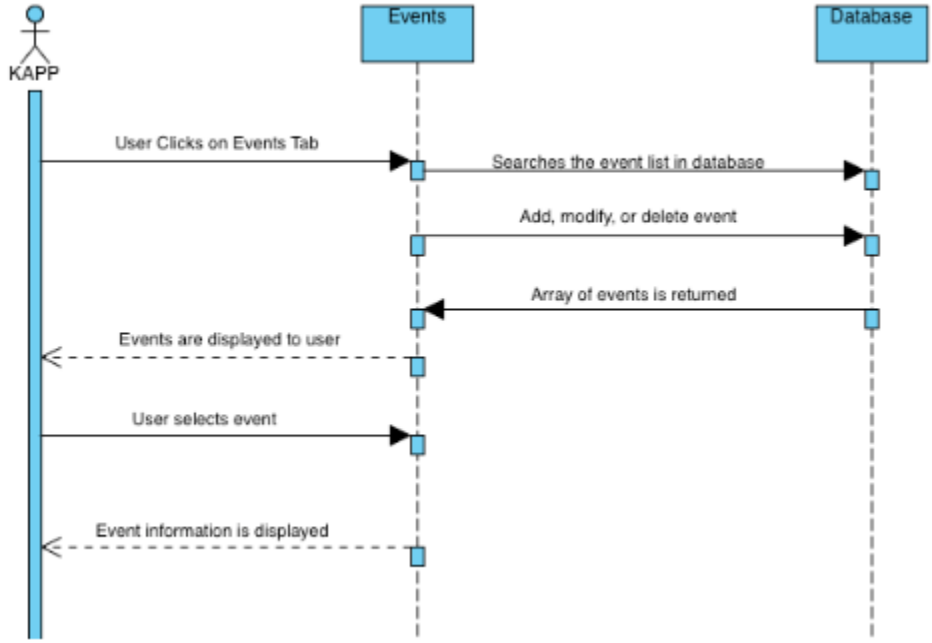

Figure 8

6. <Contact>

6.1 Brief Description

Contact is a simple way for users to contact the development team for assistance.

6.2 Flow of Events

6.2.1 Basic Flow

When a user opens the contact section, they'll be presented with a form that they can fill out with relevant information (Name, Email, and what their issue is) and submit it for review.

6.2.2 Alternative Flows

None.

6.3 Special Requirements

6.3.1 None.

6.4 Preconditions

6.4.1 *<Internet Connection>*

6.4.2 <Signed In>

6.5 Postconditions

6.5.1 None

6.6 Extension Points

None

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6.7 Use-Case Diagrams

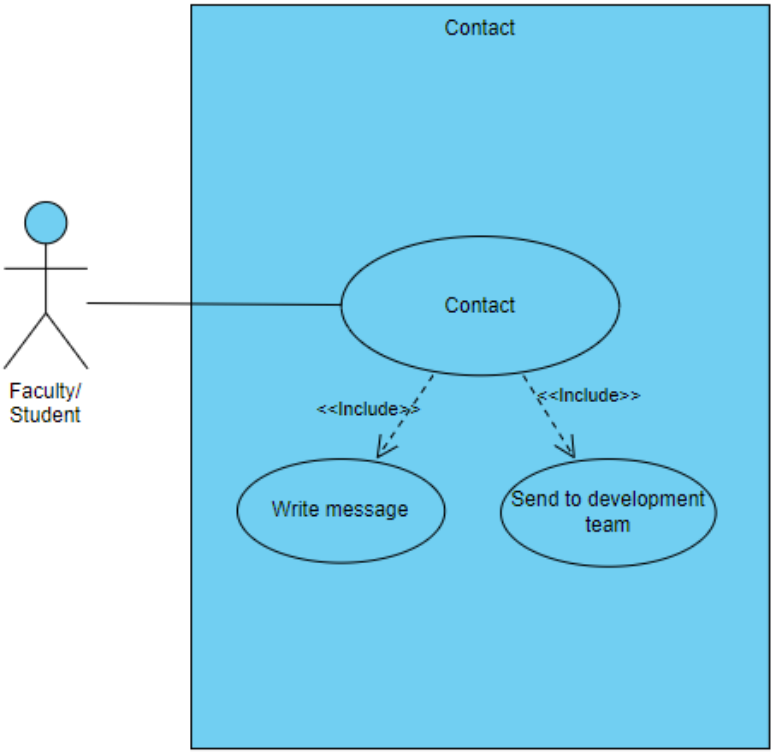

Figure 9

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7. <Degree Progress>

7.1 Brief Description

This use case is a way for a user to view their degree progress report in the app like myKU does.

7.2 Flow of Events

7.2.1 Basic Flow

When a user opens their DPR, it'll automatically display their last generated DPR from the myKU website.

7.2.2 Alternative Flows

None.

7.3 Special Requirements

7.3.1 Must has previously generated a DPR on myKU.

7.4 Preconditions

7.4.1 *<Internet Connection>*

7.4.2 <Signed In>

7.5 Postconditions

7.5.1 None.

7.6 Extension Points

None

7.7 Use-Case Diagrams

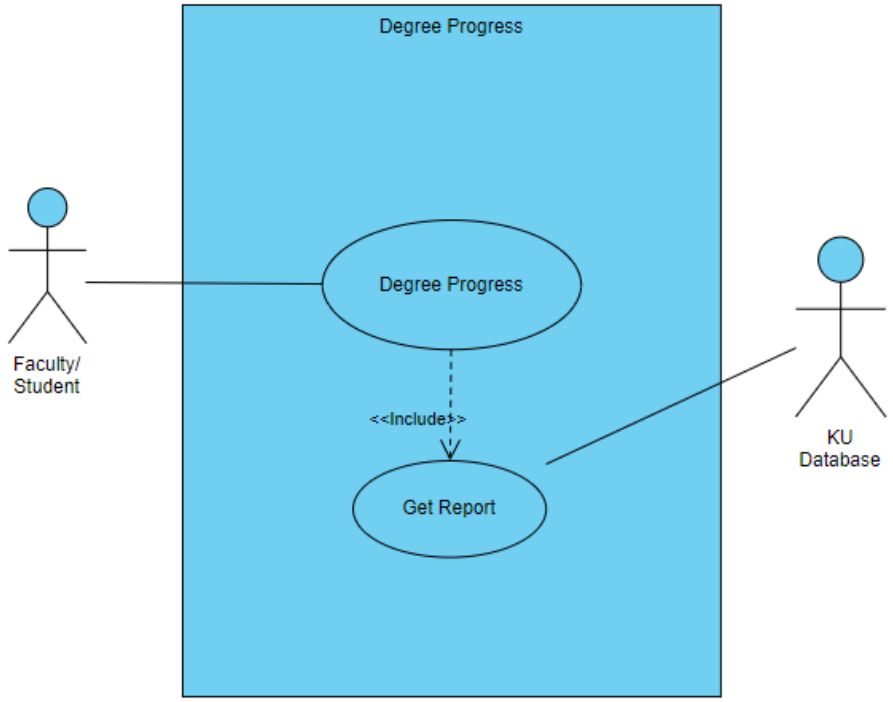

Figure 10

---

8. <GPA Calculator>

8.1 Brief Description

This use case is a GPA calculator for a student to use to automatically calculate their GPA both for Semester and Cumulative grades.

8.2 Flow of Events

8.2.1 Basic Flow

When a user opens the calculator, they will be presented to data such as: current GPA, cumulative GPA, total credits, and total grade points.

8.2.2 Alternative Flows

None.

8.3 Special Requirements

8.3.1 Must be a student and have taken at least 1 credit hour previously.

8.4 Preconditions

8.4.1 *<Internet Connection>*
8.4.2 *<Signed In>*

8.5 Postconditions

8.5.1 *None.*

8.6 Extension Points

None

8.7 Use-Case Diagrams

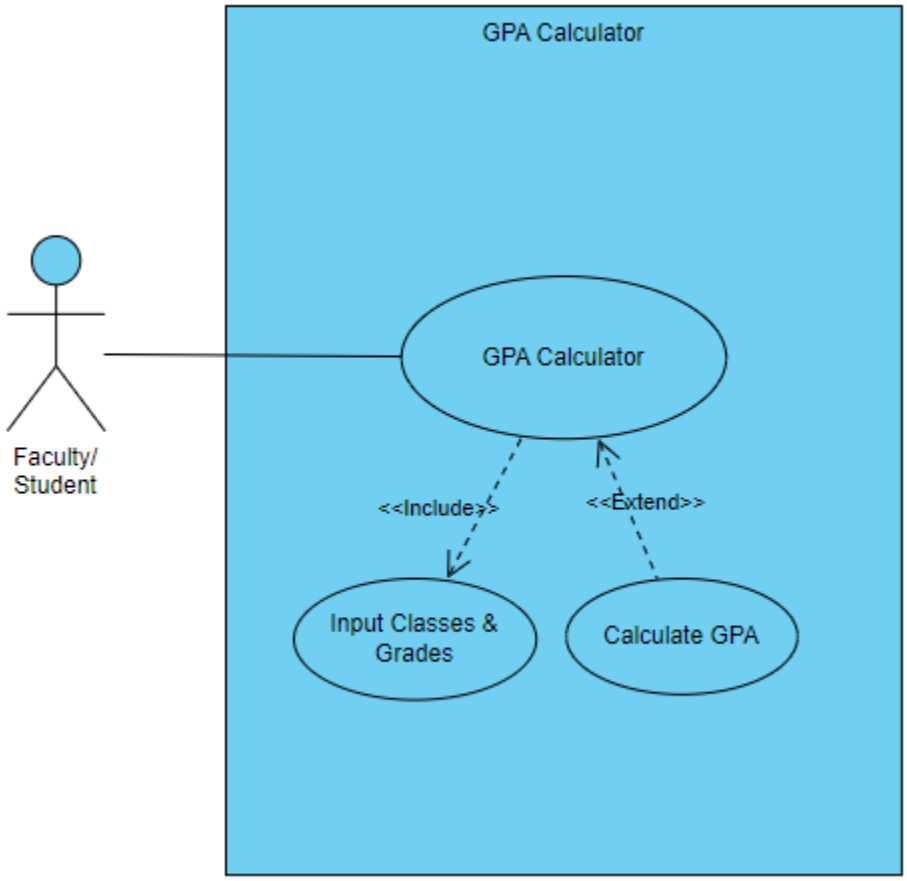

Figure 11

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8.8 Other Diagrams

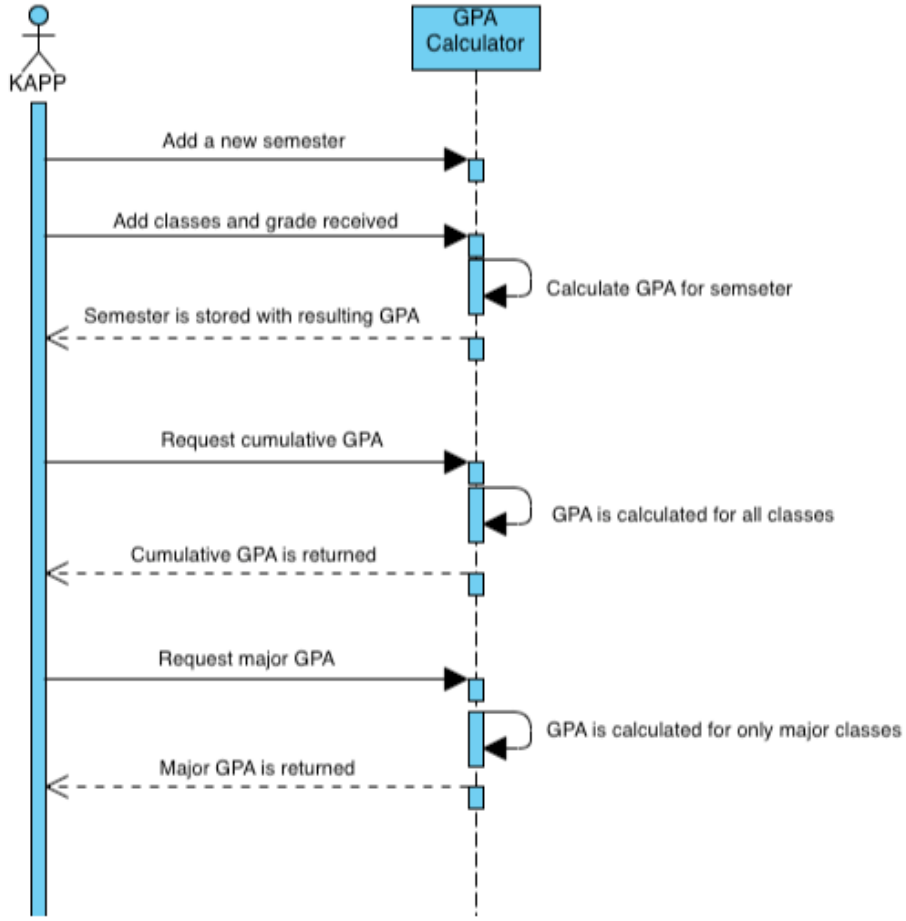

Figure 12

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