BENNETT
UNIVERSITY
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Bennett Events Portal

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Batch – **EB02**

Problem Statement

There is no reliable and structured way for event hosts to let students know about events and/or communicate event details with them. There is no convenient and quick way for students to check event details. There is no record of events.

Objectives of this Project

Bennett Events Portal is our solution to the above problems. It is an online notice board, accessible by users through the Internet, anywhere, anytime. It aims to make the PR part of hosting an event as painless as possible, by allowing event hosts to add an event to the Portal by just filling up a small form of around 6 fields. Once an event is added, an invitation is emailed to all students on their college accounts, immediately. The Portal serves as an online record of all events happening at Bennett. The Portal hence allows students to look up what events are scheduled for which dates, conveniently and quickly.

Usability

This project will be extremely useful for the event hosts at Bennett University. This software offers hassle free booking of slots for club activities, guest lectures, team meetings, registration tasks, staff meeting etc.

Event hosts can simply fill in a form and post a new event.

Invitations to that event are emailed by the Portal to all students.

Students can go to the Portal and conveniently see what all events are there on which all days, and at what times and which venues.

It also allows event hosts to check the current status/availability of the classes/lecture and adjust their own events accordingly.

It will help Bennett authorities maintain a diary or online repository of all events being held in Bennett and keep track of them.

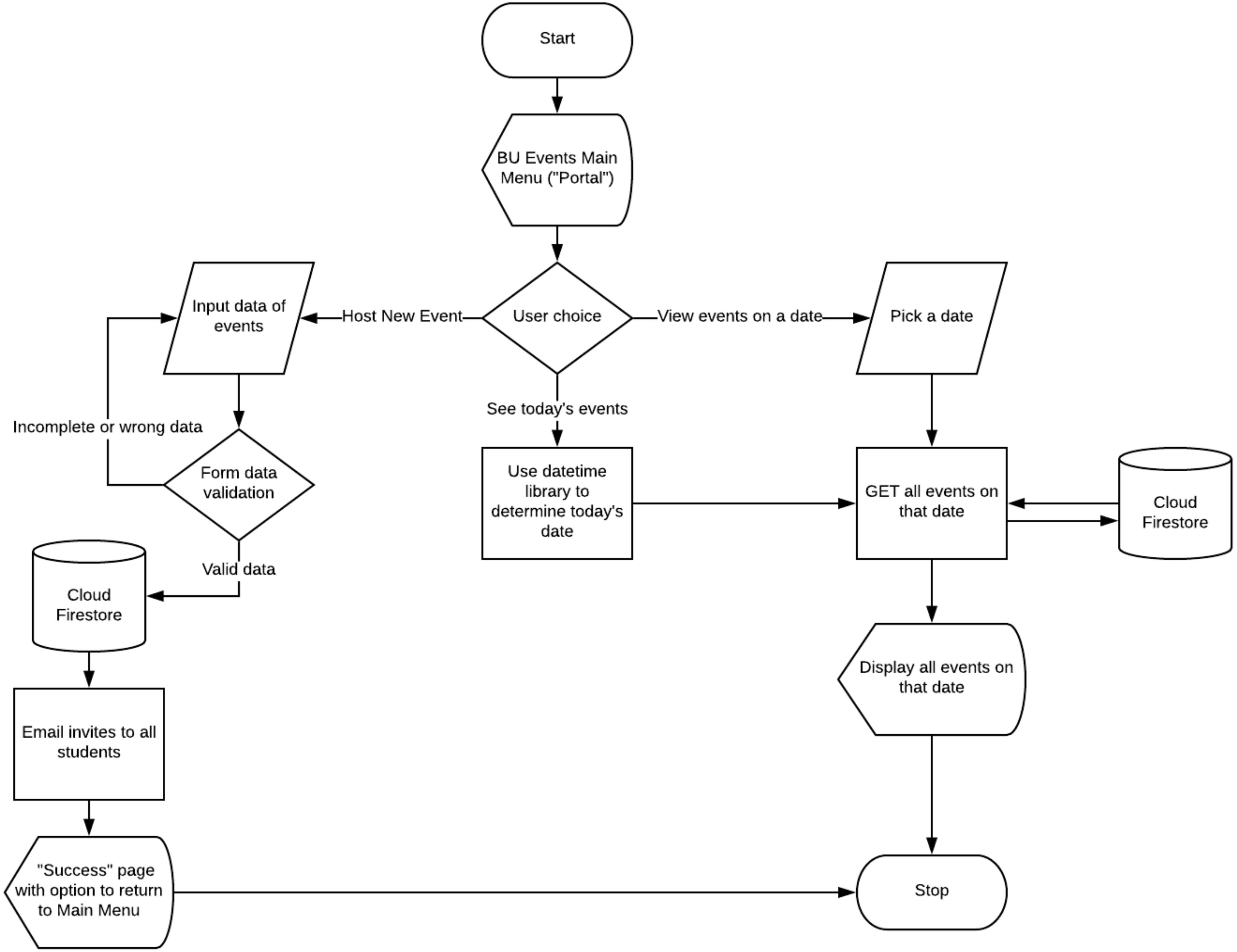
Issues with the project

The Portal trusts event hosts to be responsible and not post fake/bogus events.

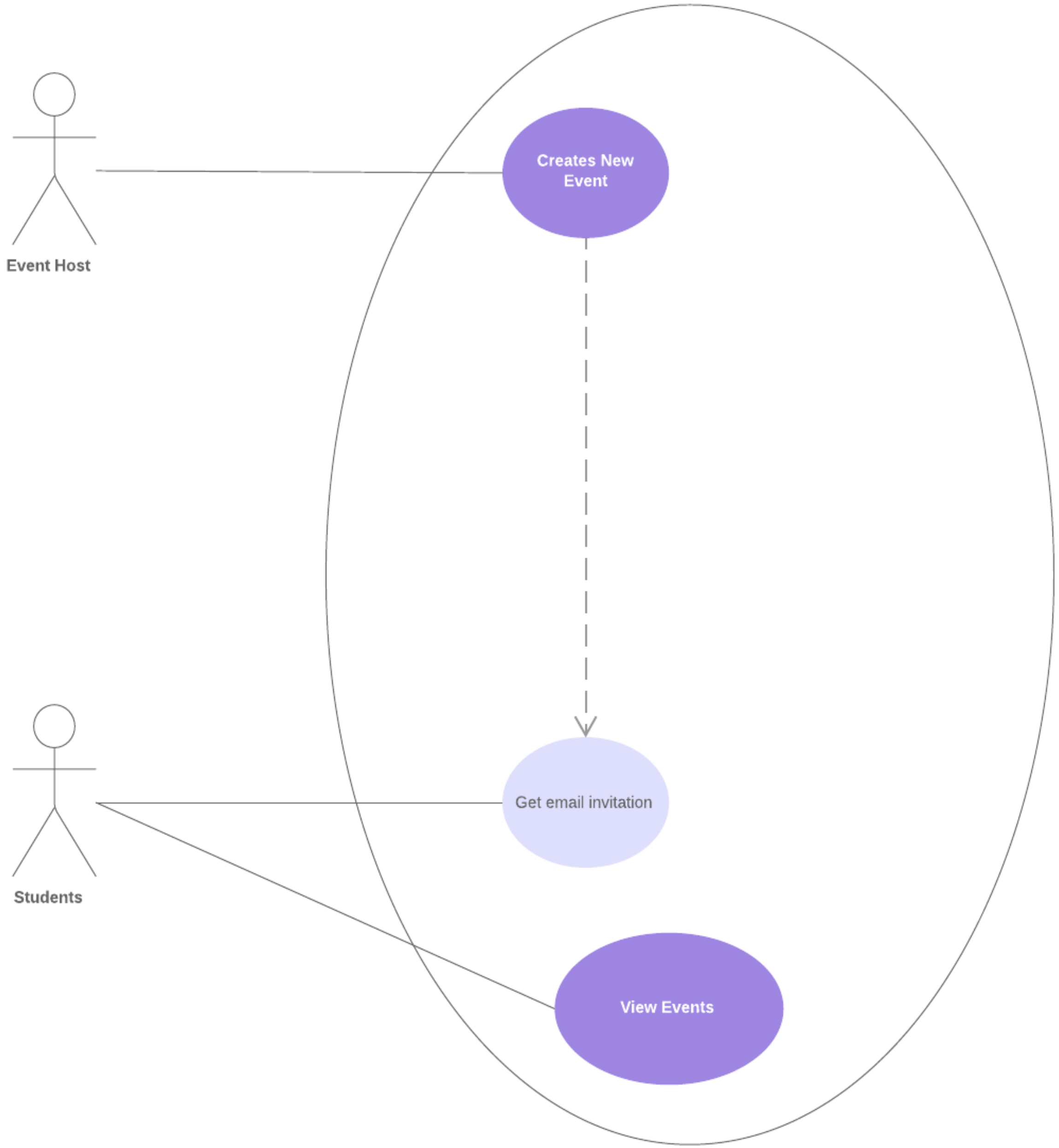
Since this was a demo project, securing the backend database wasn’t given much priority.

As number of events increase, the number of entries in the database also increases, which may mean increasing costs to maintain old data.

Flow Diagram


Start
BU Events Main Menu ("Portal")
User choice
Host New Event
View events on a date
See today's events
Input data of events
Form data validation
Incomplete or wrong data
Valid data
Cloud Firestore
Email invites to all students
"Success" page with option to return to Main Menu
Use datetime library to determine today's date
Pick a date
GET all events on that date
Cloud Firestore
Display all events on that date
Stop

Use Case Diagram



Features of B.E.P

We initially planned on making just an online display board for events.
But then we understood there was a real need for an all-in-one integrated PR solution for event hosts. Therefore we decided to add extra functionality to the project – such as the auto-generated email invites. The event hosts now need only to focus on bringing the speakers, the Portal will take care of bringing the audience.

Specific Contribution

- Code – Hitesh Nair (E18CSE064)
  Isha Puthige (E18CSE066)

- Presentation – Harsh (E18CSE061)

- Report – Hitesh Nair (E18CSE064)

- Poster – Chahat Bindra (E18CSE037)
  Gautam Jain (E18CSE056)

Languages Used

Web apps are usually made with JavaScript. However, since our course was in Python, we wanted to figure out a way to make a web app solely Python.

We have used

- Python 3.x
- Flask – A Python library for web development.
- Jinja – To render HTML.
- WTForms – A Python library for forms.
- Cloud Firestore – A NoSQL database provided by Google.
- SendGrid’s email API – To send email invitations to students.

Implementation Issues

- Even though Bootstrap is supported by Flask and Jinja, it still caused a lot of trouble for us. Therefore we were able to implement only a basic UI design for this project.
- We could not deploy the project online as we faced issues with billing, which is a financial issue, not a technical one.

Future Enhancements

- More appealing UI.
- Bennett Admins get to verify and approve events before they are visible publicly on the Portal.
- Ability to cancel or delete events.
- Ability for students to rate and comment/give feedback on events.
- Ability for students to request events from clubs on specific topics or interests.

Learnings from this Project

- A good grasp of OOP programming with Python.
- Developing web applications with Python and Flask.
- Writing backend server-side code in Python.
- Communicating with APIs in Python.
- An overview of databases and Cloud Firestore’s NoSQL model.
- An overview of Dockers and other web app deployment solutions.