



The Big Event Project

Final Report

05/03/2021

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Project Summary

Our team was commissioned to build an internal staff website for the campus organization, The Big Event. Big Event currently has an internal website managed by TAMU IT, but their organization's goal is to eventually move towards owning the website themselves, starting with a web application that can interact with their mobile app through a NoSQL Google Firestore database. This web app allows each level of staff (Staff Assistant, Committee Member, and Executive) view the status of and information about their assigned job checks and update the job with new information from residents. A job check is when a Staff Assistant visits a resident, verifies the site and requested services, and inputs the data to the database using either the Big Event mobile application or Big Event Internal. The job check is then approved by both their Committee Member and Executive before it is deemed "Completed".

Executive staff members can also manage the staff and job databases. Executives may upload a CSV file to update the staff directory or job databases and can export the current database contents to a CSV file. The Big Event uses their current website to obtain job check requests from residents and gather the staff information for the database. This CSV upload solution allows our application to maintain the Firestore Database while the Big Event transitions from their current site.

Description of User Stories

Feature: Landing Page

As a not logged in user,
I would like to see a landing page
so that I can log in and access other Big Event sites

Implementation status: Completed

Points: 2

The screenshot shows the homepage of The Big Event Online Services. At the top, there is a green header bar with the logo 'THE BIG EVENT Online Services' and the tagline 'One Big Day, One Big Thanks, One Big Event'. To the right of the logo is the Texas A&M University logo. Below the header, there is a 'Welcome!' message. The main content area is divided into three sections: 'Student Participants', 'Community Members', and 'The Big Event Committee'. Each section contains a brief description and a call-to-action button. At the bottom of the page, there is a decorative image of a brick building under a blue sky with clouds.

Section	Description	Action
Student Participants	Sign up for the Big Event by clicking the button below.	Online Student Sign-up
Community Members	Submit your job request online! Click the button below to continue.	Job Request Form
The Big Event Committee	Access committee services by clicking the button below.	Committee services

Feature: User Authentication

As a not logged in user,
I would like to log in with Google
so that I can securely access my information.

Implementation status: Completed

Points: 2

Feature: View assigned job checks of partnerships

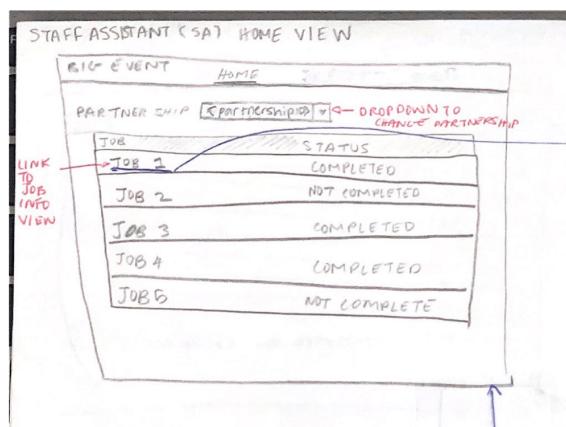
As a staff assistant (SA),
I would like to see all assigned job requests for my partnership
so that I know the status of the jobs checks and which still need to be completed.

Implementation status: Completed

Points: 2

The screenshot shows a web application for 'THE BIG EVENT Online Services'. The top navigation bar includes links for Home, Job Request, Sign Up, Job Status, Job Year, Staff Directory, and Log out. The logo for Texas A&M University is also present. The main content area displays a welcome message 'Welcome Ravi!' and a table titled 'Jobs' showing assigned job checks. The table has columns for 'Jobs', 'Status', and 'Description'. One row is highlighted with a red circle around the 'Jobs' column value '2021-0001'. The table data is as follows:

Jobs	Status	Description
2021-0001	Job Check Scheduled	Test Description1
2021-0005	Cancelled	Test Description5
2021-0009	Submitted to CM	Test Description9
2021-0013	Job Check Scheduled	Test Description13
2021-0017	Cancelled	Test Description17
2021-0021	Submitted to CM	Test Description21
2021-0025	Job Check Scheduled	Test Description25



Feature: View Job details

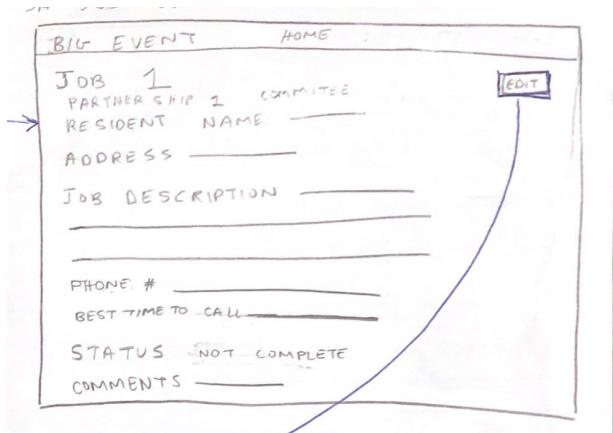
As a staff member (SA, CM, and EX),

I would like to expand the view of the job details

so that I can see all the details of a specific job and make decisions about the job accordingly.

Implementation status: Completed

Points: 2



THE BIG Online Services
One Big Day, One Big Thanks, **One Big Event**

TEXAS A&M UNIVERSITY

Welcome Ravi! [Home](#) [Job Request](#) [Sign Up](#) [Job Status](#) [Job Year](#) [Staff Directory](#) [Logout](#)

Resident Name Phone Best Time To Call

Partnership Status Job Number

Address

Job Description

Comment

Parking Pass Required? Yes No
Completable in Rain? Yes No
All tools provided? Yes No

Supplies Needed

	Provided	Needed		Provided	Needed		Provided	Needed
Axes	5	8	Brooms	3	18	DegDroths	3	18
DustPans	0	9	FlatShovels	7	6	GardenSpades	2	6
Gloves	7	8	Hammers	6	7	HandClippers	5	5
HandRakes	3	3	HedgeShears	6	6	Hoes	8	8
Ladders	9	9	LeafRakes	0	0	Mops	0	0
PaintBrushes	0	0	PaintGallons	0	0	PaintRollers	0	0
PaintScrapers	0	0	PaintTrays	0	0	PaperTowels	2	2
RollerExtensions	1	1	Saws	1	1	ScouringPads	1	1
SpadeShovels	0	0	TrashBags	0	0	TapeTrimmers	0	0
TrenchingShovels	0	0						

Orientation T-Shirts? Yes No

\$	M	L	XL	XXL
0	1	0	0	0

[Edit](#) [Complete Job Check](#) [Cancel](#)

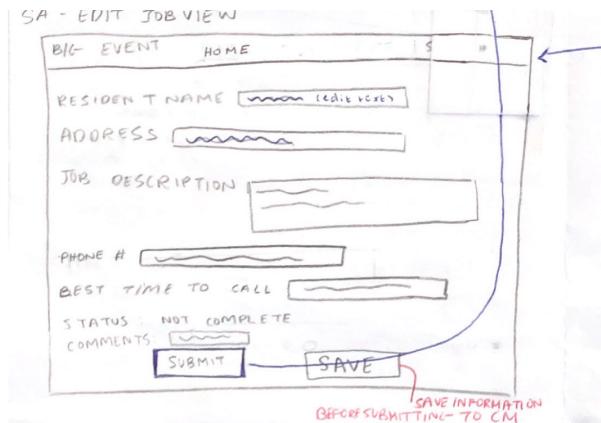
Feature: Edit Job Check

As a Staff Assistant,

I would like to input the details of the job after completing the check so that I can record the resident's information, submit the job for approval by my committee member, and prevent further editing by staff assistants.

Implementation status: Completed

Points: 2



GUI: Same view as View Job Details

Feature: View assigned job checks of committee

As a Committee Member,

I would like to see all assigned job requests for the partnerships in my committee so that I know the status of the jobs checks and which still need to be completed and which need approval.

Implementation status: Completed

Points: 2

Feature: Submit Job Check to Executive

As a committee member (CM),

I would like to edit the job check details and update the status of the job to "Submitted to Exec" so that I can prevent Staff Assistants and Committee Members from further editing the job and submit to an executive for final approval.

Implementation status: Completed

Points: 2

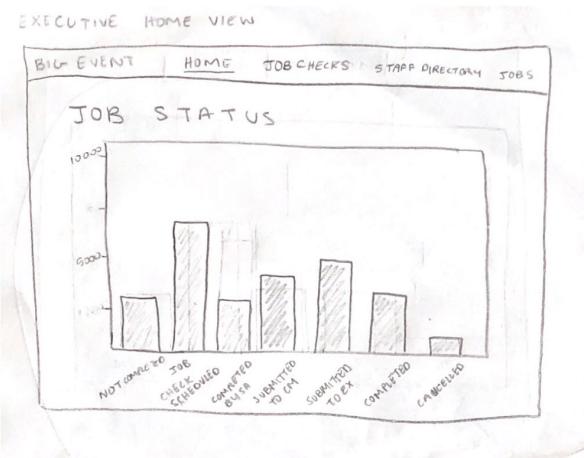
Feature: View graphical overview of job check status data

As an Executive (EX),

I would like to view a bar graph showing the status of all the jobs so that I can quickly understand and visualize the job check completion data.

Implementation status: Completed

Points: 2



The screenshot shows the "Welcome!" page of "THE BIG EVENT Online Services". The top navigation bar includes links for Home, Job Request, Sign Up, Staff Directory, and Log out. The main content area features a bar chart titled "Job Status" with the following data:

Job Status Category	Approximate Value
Cancelled	~27
Job Check Scheduled	~25
Completed by SA	~24
Submitted to CM	~23
Completed	~24
Not Completed	~22

The chart has a y-axis scale from 0 to 30. Below the chart, the text "The Big Event at Texas A&M University" is visible.

Feature: View assigned job checks of all committees under an executive

As an Executive (EX),

I would like to see all assigned job requests for the committees of which I am the executive

so that I know the status of the jobs checks and which still need to be completed and which need approval by me.

Implementation status: Completed Points: 2

Feature: Approve Jobs by Executive

As an Executive (EX),

I would like to edit the job check details and update the status of the job to "Approved by Exec"
so that the job can be officially approved and ready to be completed on the day of the Big Event.

Implementation status: Completed Points: 2

Feature: Cancel a job

As an executive (EX),

I would like to be able to cancel a job and add a reason for the cancellation so that I can remove jobs if needed.

Implementation status: Completed Points: 1

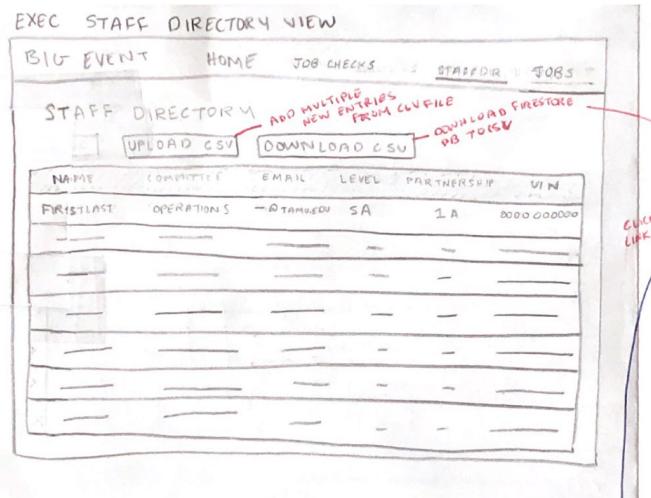
GUI: Cancel feature included on Executive View Job Details

Feature: Manage the staff directory

As an executive (EX),

I would like to view a tab for managing the staff database so I can do simple actions such as uploading a csv file of an updated staff directory to be loaded to the database, as well as add individual staff members, edit staff members, and remove staff members from the staff collection.

Implementation status: Completed Points: 2



Welcome Ravi!

Home Job Request Sign Up Job Status Job Year Staff Directory Log out

Invalid CSV File

Staff Directory

[Export to CSV](#) [Upload CSV](#) [Choose Files](#) No file chosen

Name	Email	UIN	Staff Level	Partnership ID	Committee	Superior Email
Josh John	jjohn@tamu.edu	*****	EX	1ZB	Operations	
	leah.tomotaki@tamu.edu		EX			
Mike Scott	mscott@tamu.edu	*****	SA	1A	Operations	csemera@tamu.edu
	rakeshkumar5165@tamu.edu					
Ravi Pranjal	ravipranjalp@tamu.edu	0000000	EX	2A		ravipranjalp@tamu.edu
Sam Scott	sscott@tamu.edu	*****	SA	1A	Operations	csemera@tamu.edu
Tim Smith	tsmith@tamu.edu	*****	CM	1Y	Operations	jjohn@tamu.edu

Feature: View the comprehensive job list for any year

As an executive (EX),

I would like to view the list of all jobs and change the year

so that I can find the details for any job both inside and outside my jurisdiction as an executive.

Implementation status: Completed

Points: 2

Feature: Download the comprehensive job list for any year

As an executive (EX),

I would like to change the year and download the comprehensive list of jobs to a csv file so that I can use the job data outside the application.

Implementation status: Completed

Points: 2

Team Roles

Scrum Master - Ankit Garg

Product Owner - Leah Tomotaki

Other Developers - Akshit Kharbanda, Christian Smith, Rakesh Kumar Sanath Kumar Kadaba, Ravi Pranjal

These roles did not change during the project.

Scrum Iterations

Iteration 0 (April 06- April 12):

In Iteration 0, we had our initial customer meetings to determine the product specifications and use cases from which we wrote the User Stories. We then transferred these user stories into Lo-fi UI Mockups which were reviewed with the client. We also set up the boilerplate Ruby project and created a Google Firestore Database.

Iteration 1 (April 13- April 19):

In Iteration 1, we configured the database to interact with our application. This was a challenge initially because we could not use Ruby ActiveRecords for the NoSQL Firestore. We completed the landing page, View assigned job checks of partnerships, View job details user stories. We also began working on the user authentication story, but did not complete it in this iteration. We attempted to set up the testing environment, but were unsuccessful because our product does not use ActiveRecords and was not configured for Cucumber or RSpec testing.

Iteration 2 (April 20- April 26):

In iteration 2, we completed the user authentication, staff directory management, and job check status graph stories. In addition, we succeeded in setting up the testing environment and began writing tests for our previously completed user stories.

Iteration 3 (April 27- May 3):

In Iteration 3, we focused on writing tests to ensure that the final product was well tested and ready to pass on to the customer. We also implemented the job database management page for current and past years and added the functionality to edit the job check information.

Customer Meetings

February 10, 2021: Meeting between customer (Canyon Sembera, Big Event Staff) and Product Owner (Leah Tomotaki) to discuss feasibility and scope of the project.

February 11, 2021: Meeting with customer and team to officially discuss initial project idea and requirements.

March 10, 2021: Customer got back to us with his exact requirements. Meeting to discuss the same. Clarifying questions were asked about job checks and the structure of The Big Event staff. We also determined that the Big Event Internal app will interact with the current Big Event infrastructure through the transfer of CSV files. User stories were developed from the design document after the meeting.

April 12, 2021: The team presented the lo-fi UI mock-ups to make sure all user stories and functionalities were being covered. Some changes and suggestions were made during the meeting, which were included in the mock-ups submitted to Iteration 0. We also discussed the database structure. The Big Event mobile app uses a Google Firestore database backend, which will eventually be integrated with our application. Therefore, the structure of our database is similar to the existing database for a seamless integration in the future.

April 26, 2021: We demoed the landing page, login with Google Authentication, job view page for staff member page, and staff directory page. In the staff directory page, we demoed viewing the entire staff directory, uploading changes to the database using a CSV file, and exporting the database to a CSV. We also demonstrated the graphical overview of job check status data for Executives feature. The customer was able to provide feedback about the different job check statuses to populate the graph with.

BDD/TDD Process

Our BDD/TDD process was delayed because of an issue with running Cucumber tests.

This is from Iteration 1 documentation:

"The customer wants us to use Google Firestore as a database. We have set up Cucumber in the project but while running the command "cucumber features/feature_file.feature", we get the following ActiveRecord error(see image below). However, we are not using ActiveRecord in our code anywhere, and are actually stuck on the BDD part because of this."

```

# | 2021-0000 | 1A | NEW |
# | 2021-0001 | 1B | COMPLETE |
# | 2021-0002 | 2A | NEW |
# | 2021-0003 | 2B | NEW |
# | 2021-0004 | 1C | COMPLETE |
# # And I am on the BigEvent home page
# Then 5 seed movies should exist
Scenario: open job page          # features/job_detail.feature:15
  No connection pool for 'ActiveRecord::Base' found. (ActiveRecord::ConnectionNotEstablished)
  When I go to job page for "2021-0000"    # features/job_detail.feature:16
    Undefined step: "I go to job page for "2021-0000"" (Cucumber::Core::Test::Result::Undefined)
    features/job_detail.feature:16:in `I go to job page for "2021-0000"'
  Then I should be on job page "2021-0000" # features/job_detail.feature:17
    Undefined step: "I should be on job page "2021-0000"" (Cucumber::Core::Test::Result::Undefined)
    features/job_detail.feature:17:in `I should be on job page "2021-0000"'
    ActiveRecord::ConnectionNotEstablished (ActiveRecord::ConnectionNotEstablished)

Failing Scenarios:
cucumber features/job_detail.feature:15 # Scenario: open job page

```

We were able to resolve this issue during Iteration 2 but this means that many of our Cucumber and RSpec tests were written after our development of the features. This also means we were not able to reach the level of test coverage that we would have liked to. This issue was communicated to the TA during our weekly meeting and there was an understanding that our test coverage would not be as high because of it.

Finally, we were able to achieve a test coverage of more than 75% at the end of iteration 3.

Configuration Management

We set up our project on GitHub and made minor releases on a day-to-day basis with a major release to Heroku each week for the end of each Agile iteration. Every time a pull request was made from a feature branch, we required two other members of the team to approve before the branch could be merged into the master branch. This allowed us to have accountability to ensure our code worked together smoothly.

We did not use any spikes for our project as each of our user stories were a part of the actual product development. We used a separate branch for each feature we added to the application. We have a total of 32 branches that are broken down into initial application set up, bug fixes, and several feature branches. Many of the features themselves have multiple branches for different versions of the feature.

Heroku Issues

We did not face any issues during the production release process to Heroku.

AWS Cloud9 Issues

One issue we had with using AWS Cloud9 was with Google authentication for users. In our authentication process we had to set up a Google Cloud Platform project and link a redirect URI once authentication was complete. When testing locally using an AWS Cloud9 environment, routing back to the application was not possible after routing to the Google authentication page. This prevented us from testing locally and we had to resort to switching to an Ubuntu environment on our local machine to test. However once deployed on Heroku, there were no issues with the redirect regardless of the development environment.

Benefits of Tools Used

OmniAuth: We used this gem to simplify the authentication process for Google OAuth2

Important Links

Heroku Deployment: <https://big-event-online.herokuapp.com/>

Github: https://github.com/akshit04/big_event

Poster Presentation and Demo Video: <https://youtu.be/aV5dL9lsF3M>

Pivotal Tracker: <https://www.pivotaltracker.com/n/projects/2495258>

Code climate: https://codeclimate.com/github/akshit04/big_event

Maintainability Score: A

SimpleCov: https://github.com/akshit04/big_event/blob/master/coverage/index.html