Department of Computer Science & Engineering
The University of Texas at Arlington

Project Charter
CSE 4316: Senior Design I
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Bits Please
OurScene

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Revision History

Revision	Date	Author(s)	Description
0.1	10.03.2023	All Members	Document Creation

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1 Problem Statement

The local music scene remains fragmented, with a glaring absence of a digital interface to bridge its various components. This current landscape results in numerous challenges: local bands grapple with visibility issues, making audience engagement arduous; venues and promoters find it strenuous to discern the potential draw of bands; and music fans often miss out on shows they might otherwise would have enjoyed. The overarching objective of "OurScene" is to rectify this disjointed landscape by offering a unified platform that simplifies interactions among venues, promoters, bands, and fans.

2 Methodology

"OurScene" plans to be a comprehensive app solution. Collaborating closely with promoters, bands, and venues, the app will curate a consolidated calendar, streamlining event booking, ticket purchasing, and performance analytics. For bands, this platform offers a unique opportunity to directly engage with their audience, featuring tailored playlists and a continuous radio station exclusively playing top-rated tracks. Additionally, users benefit from an innovative feature: an interactive map display of local shows. If bands featured in these shows are registered with "OurScene", users can conveniently access a playlist tailored for the event, further enhancing their pre-event experience.

3 Value Proposition

"OurScene" stands as a quintessential synergy of innovation and utility for all stakeholders. For the end-users, it demystifies the local music scene, granting them access to underrepresented music and events that might have otherwise evaded their radar. Bands are presented with a unique prospect to organically amplify their local presence, ensuring their talent receives due recognition without being overshadowed by mainstream counterparts. Promoters, with the app's data-centric approach, can now make informed decisions, leveraging key performance metrics to discern the potential of bands, thereby optimizing their event planning. Lastly, venues stand to benefit immensely by integrating with a platform that not only simplifies the booking process but also minimizes uncertainties, ensuring a seamless operational flow.

4 Development Milestones

This list of core project milestones should include all major documents, demonstration of major project features, and associated deadlines. Any date that has not yet been officially scheduled at the time of preparing this document may be listed by month.

- Project Charter first draft - October 2023
- SRS - October 2023
- ADS - November 2023
- Peer Review - December 2023

5 Background

Our Scene understands that itâs not easy to spread the news about your up-and-coming band within a local area, and we stride to not only ease the process, but also improve upon it. Local music as of right now is fragmented because there is just not a certain way of knowing when someone is playing or where locally, but with the help of Our Scene it will change all of that, because we are created a centralized location for local artists to post their live dates. With that in mind there are also other issue local artists have to deal with such as finding a venue and dealing with promoters. With Our Scene we want to create an all-in-one application that not only helps the local artist book a venue, and promote their event, but also a place where local music enthusiast can come a find shows near them anytime.

6 Related Work

As of right now, there are not too many applications that simulate what we as a team are trying to create but there are some close competitors. For starters, Spotify provides a portion of what we trying to simulate which is to promote concerts. We as a whole would not only like to promote concerts but also make it easier for local artists to be heard. Although Spotify offers promotions to artist's upcoming tours it does not help simplify the interaction between venues, promoters, bands, and fans altogether. Our scene as a whole will change and also add value in that fact that it's more oriented towards the smaller and more local groups, such that you as a music enthusiast will always be up to date on local artist's live performances. Many other music subscription services (Apple Music, etc.) provide similar functionality as Spotify.

7 System Overview

"OurScene" intends to streamline the local music industry by implementing a central hub for each user in the process. The main feature will be a unified calendar system with different views based on the user specification (Fan, Artist, Promoter, and Venue), allowing all members to communicate schedules and view when time slots are booked or available. The fans will be able to see when their favorite bands are performing as well as new music at known or unknown venues. The artist will be able to see what time slots are being shared by the promoter and also see what other artists are performing in the same set. The promoter will be able to schedule artists with ease allowing them to market to unknown artists and work closely with the venue. The venue will be able to see all that is happening in the scheduling process and make decisions if need be. After a gig is booked, a channel is created so that fans of one artist can see who else is performing and possibly discover a new artist to start following as well as giving a preview into what the show will be like. To assist in the promoter's search for artists as well as the artist's attempt to be discovered, the artist will be able to upload their music through Spotify onto the site, which will be viewable by a fan trying to find new music. On top of being able to hear the artist's music, fans can vote and boost songs or artists they enjoy helping get their music discovered and booked more often.

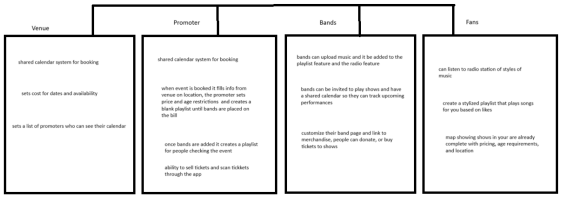


Figure 1: System Overview

8 Roles & Responsibilities

The stakeholders will be the potential investors as this project is in collaboration with the entrepreneurial engineering class meaning the project will have a CEO, CTO, and CMO filled by Bryan Cox, Eddie, and Diego respectively. Bryan will be the acting product owner as the CEO and primary contact for product details and scrum master will shift based on who has experience or for others to gain experience. The design team consists of Bryan Cox, Daniel Palma, Harrison Cawood, Sanny Tesfay, Shawn Hyder, and Vincent Nguyen

9 Cost Proposal

Since "OurScene" is planned to expand to the local market, the main expense will be server space, which will not be of any cost during development due to the small-scale implementation. The project is fully software-based, therefor budget will be minimal.

9.1 Preliminary Budget

Server space	$100

9.2 Current & Pending Support

Primary funding will come from the CSE department at $800. After the first semester of development, it is planned to pitch the idea to investors in order to gather more funding to bring this project to reality. These investors will come from in-person presentations to potential clients as well as the MavPitch competition.

10 Facilities & Equipment

Lab space and makerspaces required for Our Scene will be minimal. All work on Our Scene can be done with a personal computer and a basic meeting area. Meeting areas will need to have electricity as well as a way to connect to the internet. Testing grounds for Our Scene will not be needed however testing may be done at various venues or promoter locations as needed. No physical equipment for Our Scene will need to be borrowed. Services such as Amazon Web Services will be required to host Our Scene.

11 Assumptions

- A web service will be available by the 4th sprint cycle
- Funding for the web service will be acquired by the end of the 4th sprint cycle
- Services for Our Scene will only be available within DFW
- MP3 files will be used when storing audio on to database
- Web service will be able to handle various types of files to include multiple image formats as well as MP3s
- Additional funding will be supplied by investors

12 Constraints

The following list contains key constraints related to the implementation and testing of the project.

- Total development cost must not exceed $800 initially
- Uploaded audio from user must not infringe on copyright laws

- Uploaded images from user must not infringe on copyright laws
- Investors will need to have a working prototype for additional funding
- Users will need accounts with other services that are integrated into Our Scene

13 Risks

The following high-level risk census contains identified project risks with the highest exposure. Mitigation strategies will be discussed in future planning sessions.

Risk description	Probability	Loss (days)	Exposure (days)
Added workload or time requirements because of new direction, policy, etc.	0.60	7	4.2
Delay in earlier project phases jeopardizes the ability to meet fixed date	0.30	9	2.7
Delay on additional funding from investors	0.30	7	2.1
Conflicting schedules	0.40	5	2.0
Unplanned work that must be accommodated	0.10	10	1.0
Lack of communication, causing lack of clarity and confusion	0.30	3	0.9
Internet access issues	0.20	2	0.4

Table 1: Overview of highest exposure project risks

14 Documentation & Reporting

14.1 Major Documentation Deliverables

14.1.1 Project Charter

The Project Charter will be updated at the end of every sprint, or when significant project scope changes occur. The team will review the charter to ensure that project goals and objectives remain relevant and updated. Initial delivery will be 10/2023 and final delivery will be 5/2024

14.1.2 System Requirements Specification

The System Requirements Specification will be updated after every second sprint or when new requirements are identified. Feedback from stakeholders during sprint reviews will be crucial for updates. Initial Version Delivery will be delivered by the end of Sprint 2. Final Version Delivery will be delivered by 4/2024 to allow the last two sprints for final adjustments and improvements.

14.1.3 Architectural Design Specification

The Architectural Design Specification will be updated every third sprint or when a major technical decision leads to a design change. The document will be evaluated in light of any evolving system requirements. The initial version will be delivered by the end of Sprint 3, and the final version delivery will be by 04/2024 to ensure the application's architecture is solidified before the project concludes.

14.1.4 Detailed Design Specification

The Detailed Design Specification will be updated at the end of every sprint as features are finalized and as the design evolves based on stakeholder feedback and testing results. The initial version will be delivered by the end of sprint 4, giving the team time to base it on the Architectural Design. The final version will be delivered 4/2024, along with the completed project.

14.2 Recurring Sprint Items

14.2.1 Product Backlog

Items will be added to the product backlog via Jira, upon completion of the SRS. The Backlog will be prioritized by how important the feature is for the demonstrations for MavPitch and for Senior Design. The Product Owner will give the group options and the group will vote from the options given. The team is using Jira and Confluence as well as an organization on Git Hub.

14.2.2 Sprint Planning

Each sprint will be planned with a meeting at the start to decide what to continue, what to stop and what to start. There will be 5 sprints this semester and 5-6 the next semester. Sprints will last two weeks

14.2.3 Sprint Goal

The sprint goal will be decided by Brian as he is the Product owner. The customer will be involved through demonstrations, requirements collecting, and feedback from Venues, promoters, and bands.

14.2.4 Sprint Backlog

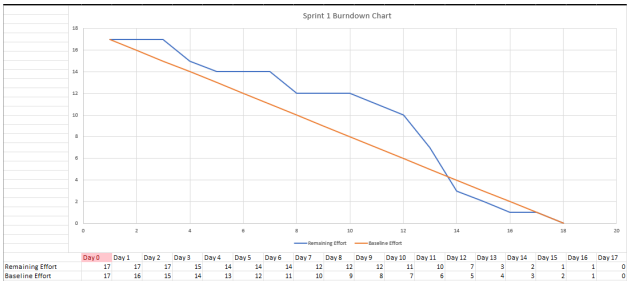
Bryan the product owner will decide the product backlog items that end up in the sprint backlog. The backlog will be maintained using Jira, confluence, and our Git Hub.

14.2.5 Task Breakdown

Upon the selection of sprint backlog items that are chosen by Bryan, the group will volunteer and be assigned individual tasks. With time being tracked also using Jira.

14.2.6 Sprint Burn Down Charts

Bryan will be responsible for generating the burn-down charts for each sprint. The total amount of time and effort will be recorded using Jira. The format used will be a simple effort vs. time chart.



	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15	Day 16	Day 17
Remaining Effort	17	17	17	15	14	14	14	12	12	12	11	10	7	3	2	1	1	0
Baseline Effort	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Figure 2: Example sprint burn down chart

14.2.7 Sprint Retrospective

With each sprint, there will be a meeting at the end (1 day after) to look back and reflect on the work that was done. Things such as time effectiveness, work done, work needed to be added/modified, etc. will be documented. This documentation would be due several days after the sprint is complete.

14.2.8 Individual Status Reports

With the individual status report things such as burn out chart, team review and team efficiency will be reported after each sprint in order to deal with and fix any issue going on within the team sprint.

14.3 Closeout Materials

14.3.1 System Prototype

The system prototype will include the following features for attendees, promoters, bands, and venues as appropriate:

- Streamlined calendars for all users with event dates
- ticket purchases and event booking for all users
- ticket metrics/money clearing for promoters, venues, and bands
- band metrics for promoters, venues, and bands
- In-app messaging for all users
- Curated playlists for all users
- Top-rated tracks radio station for all users

14.3.2 Project Poster

The final poster will be 42x46 inches and delivered in April of 2024. The final poster will include pertinent information regarding research, client meetings, frameworks used, and design decisions made during the project.

14.3.3 Web Page

The project web page will be a functioning demo of Our Scene that will be updated throughout the duration of the project as features get added. Our Scene will be available to the public at closeout.

14.3.4 Demo Video

There will be different demo videos that will be approximately 3 to 4 minutes long, highlighting and demonstrating different features for specific users. We are targeting three different kinds of users: promoters and venues, artists/bands, and fans. Some of the features will include a unified calendar for promoters and fans to view upcoming gigs around their vicinity, digital booking system for artists/bands to build their profile for more visibility and reveal open slots, as well as a hub for fans to dive in and explore local artists/bands.

14.3.5 Source Code

Our source code will be maintained through GitHub. It will be a proprietary software, so the souce code will not be provided to the public.

14.3.6 Source Code Documentation

API documentation will be employed. We will use tools to generate the documentation, such as IDEs, and standalone documentation generators such as JSDoc. The format of the final documentation will be provided as a browsable HTML for developers to easily read and understand.

14.3.7 Installation Scripts

The project will be web-based and therefor not require any installation scripts or executables. If the project were to extend to mobile applications, only a download of the application itself from the respective store would be necessary ro access the features.

14.3.8 User Manual

There will be no user manual for the project, but helpful tooltips or a small introduction to the interface might be implemented in order to get new users accustomed to the site. The goal is to make âOurSceneâ an easy-to-use site where the key aspects are trivial to understand.

References