SW Engineering CSC 648/848 Fall 2019
CATDOG

Group Number 5
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History Table	
Version	Submission date
Milestone 1 V 1.0	10/02/2019
Milestone 2 V 2.0	10/30/2019

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1-Executive summary:

San Francisco is the Mecca of the tech industry that is full of working-class professionals who have pets as companions. Here at CatDog, we present a service that provides the personal loving pet care that owners themselves would provide in their own home. Our business ensures that a pet owner can take business trips or vacations without the stress of traveling with a pet and feeling secure in knowing their pets are in good hands.

Here at CatDog, we strive to create a network that bridges animal lovers together while providing a service that lacks in the market. As animal lovers ourselves, our headquarters in San Francisco allows us to target the audience and demographics of working-class individuals that are on the go and in need of a personalized and ethic service for their pet companions. We understand the demand for this service in San Francisco.

To emphasize the quality of pet care we will provide and the availability of our service it is important to consider the quality of life San Francisco residents live themselves and share with their pets. Our service is focused on the richness and aid animals provide their owners on a day to day basis, while understanding that our clients have busy schedules but would still revel in knowing their pets are in good hands while they are away. By allowing our clients to continue to invest in their pets with affluent care and service that is provide with a certified staff.

Currently, there are businesses offering pet sitting in San Francisco, but none offer a simple yet trusted service. Most of these pet sitting services care for several pets at once from different owners which causes an issue. Here at Cat Dog, we offer a more compatible and individualized pet care experiences. By relieving our clients of all the middle work, that we take on instead by having insured and bonded employees. We aim to make every process of working with our company as easy as possible starting with our application.

CatDog is hassle-free and simple, we provide thoroughly vetted sitters; making the safety of pets our highest priority. It is slick and streamline with a minimal approach to our user interface. In this interface, we put our focus on pets by building a specified animal profile displaying the needs of the pets. Forming a more personalized pet sitter experience. We are focused on generating a fast, secure, and efficient application.

2-Main Use Cases:

Admin - Privileges/Technical Support/Customer Support:
      Mikael receives a notification marked as "Urgent". **Mikael** logs into his internal company email and notices a report message from **Julio** reporting **Joe** for a "No Show at Specified Time". This is **Joes'** first "No Show" out of two allowed. Were **Joe** to receive a second "no show" **Mikael** will enforce a ban on the worker and remove his profile. **Mikael** accesses the internal database to retrieve **Joes'** information and proceeds to contact **Joe**. **Mikael** then proceeds to contact **Julio** regarding the situation and gives him the option of cancelling the booking completely in which case the money will be returned, or try to re-book another worker that could be available.
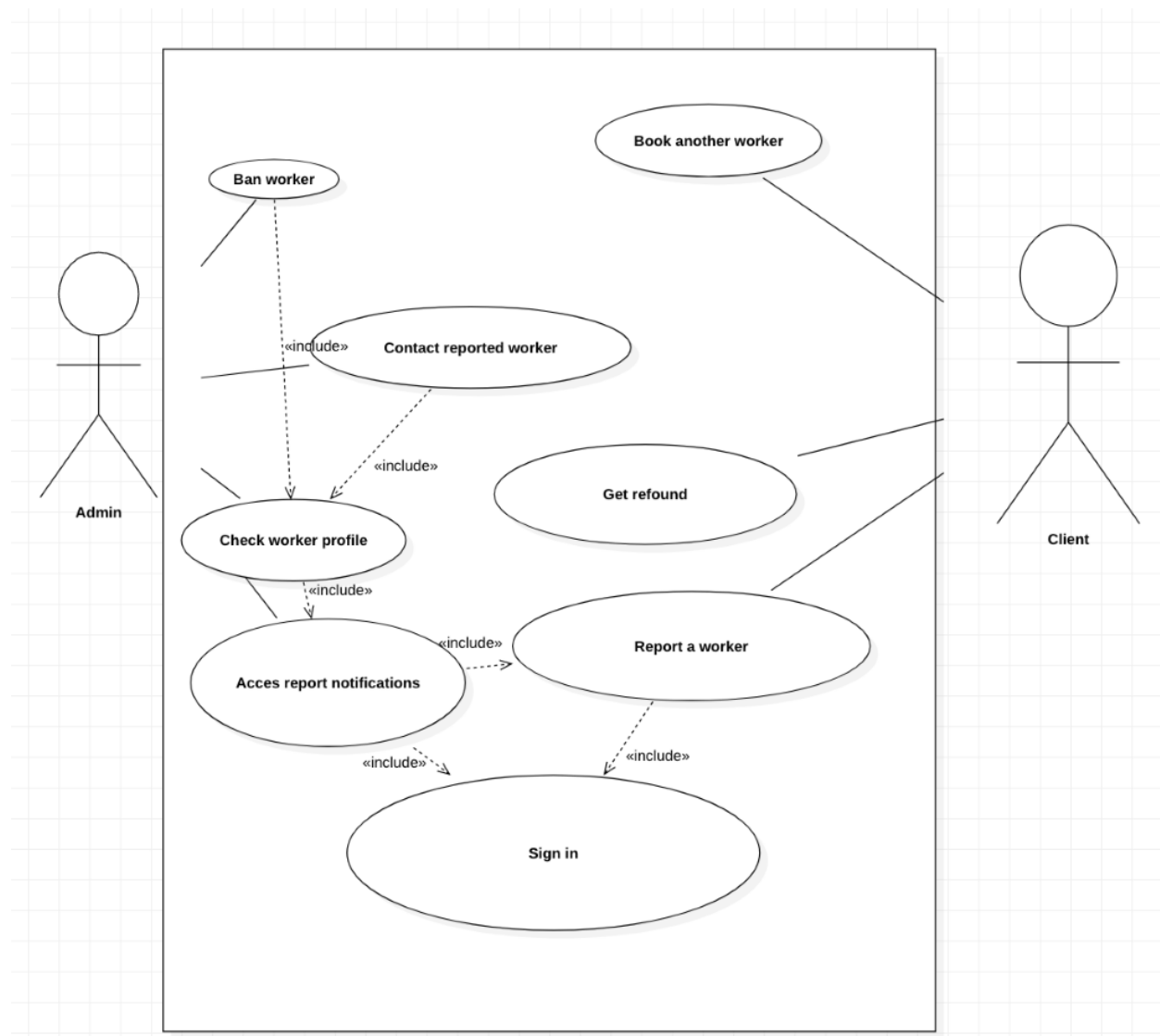
Use case diagram 1: Admin - Customer Support

Client (Creating Pet Profile):

     Julio has a busy schedule and travels a lot due to work and usually has friends or family care for his cat **Sparkles**. One of his friends mentions this site, CatDog, where one can book pet sitters that work around any schedule. After exploring through the sites main page, accessing a quick demo showing how the sitters services work and reading some of the client reviews on their experiences with the sitter service as well as browsing over some of the accredited pet sitters and their stories, **Julio's** interest has now peaked and he decides to take the next step and create a free client profile registering as a **new user** to find a sitter for his cat **Sparkles**. **Julio** proceeds by creating a **new account,** which will, upon completion, enable him to book a sitter, by filling out all the required contact information. **Julio** has finished signing up as a **new user** and is now redirected unto what will be his **user page (his home page)**. **Julio** can now create his "**Pet Profile**" which will contain a relevant information on his pet. **Julio** proceeds to make a profile for his cat **Sparkles** answering some basic questions. **Julio** has completely finished creating the profile and he is now ready to save it and make it <u>visible to workers</u>.


Use case diagram 2: Create a Pet Profile.

Client (Booking Worker for Specific Days):

        Julio has an important work trip coming up in a week and needs someone to look over his cat **Sparkles** for three days**. Julio** logs into his client account and proceeds to the option of "create a booking request" specifying the three days he will be gone. After completing the required booking information and agreeing to the "Terms & Conditions", **Julio** can now receive notifications from workers who are interest and available. **Julio** receives a notification from **Joe** saying he are available for the specified dates and proceeds to navigate to **Joes'** profile to look over his accreditation and read over some of the reviews about **Joe.** After going over **Joes'** profile, Julio is convinced and decides to complete the booking with **Joe**.

Worker (Request Client Booking):

      Joe has some free time since it's summer and school's out so he decides to change his availability on his worker profile to "Open" that will notify him of any booking requests that is coming up. **Joe** receives a notification on a client who will be gone for three days and is requesting a pet sitter for a "feline/cat" for those days. After looking at the clients "Pet Profile" **Joe** decides to "Request This Booking" then sends a message to the client stating that **Joe** is available for the specified dates and is requesting the booking.
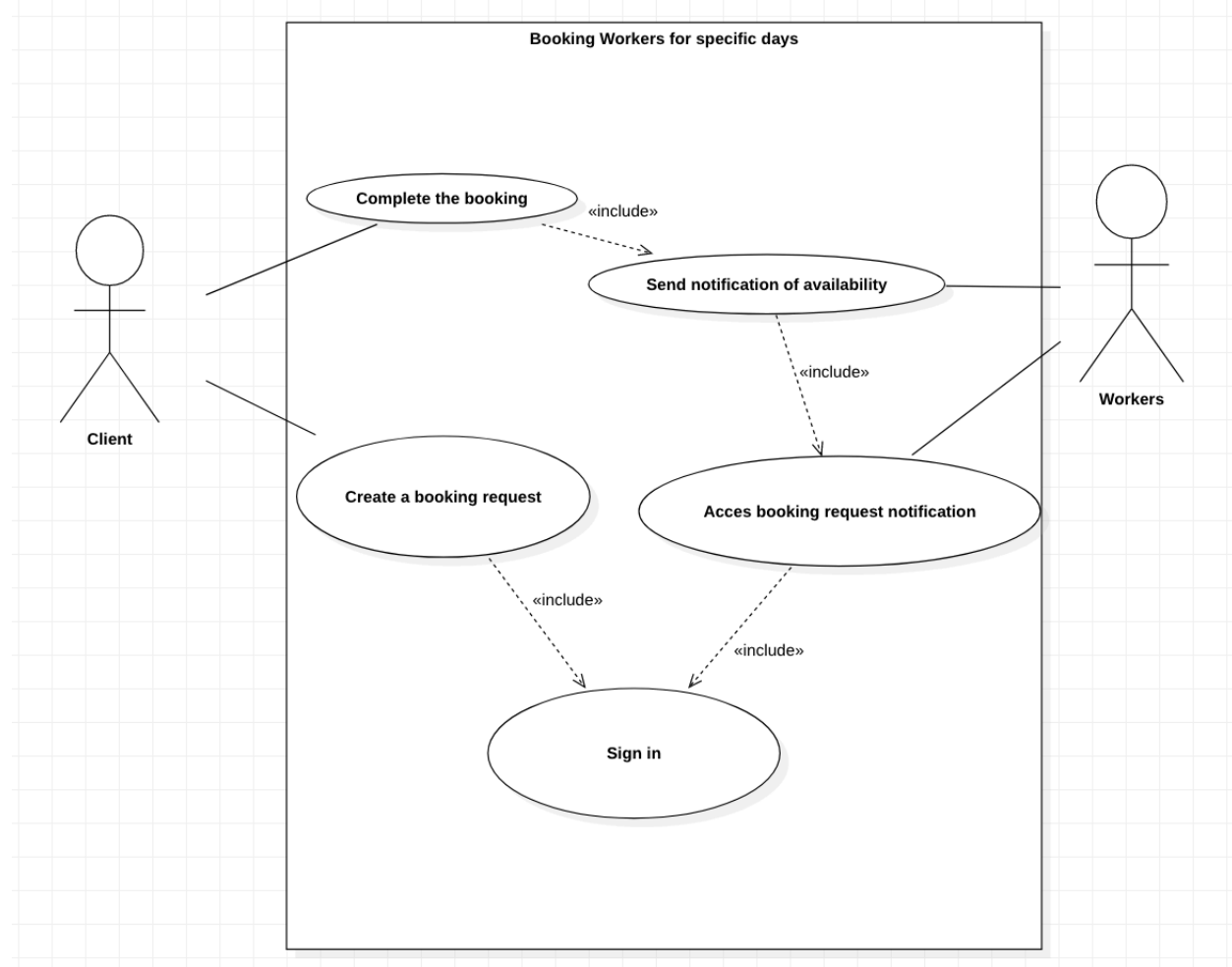
Use case diagram 3: Worker (Request Client Booking) / Client:
Booking Worker for specific days

Guest (Register/Sign Up as Worker):

      Conny attends college 4 days out of the week and has afternoons, evenings and nights free so **Conny** concludes that some extra income and working around her own schedule would be nice. **Conny** hears about the CatDog website and decides
to browse the CatDog website. After viewing some of the clients reviews and reading about the company benefits at CatDog, **Conny** is convinced and decides to "Sign Up" as a worker. After clicking the "sign up" link/button **Connie** is presented with two options, one is to sign up as a client while the other option is to sign up as a worker. Connie chooses the worker option and is redirected to the worker form, where she fills out all the required information. Before being able to proceed with the application Connie is presented with a message regarding proper certification requirements. Stating that in order to proceed with the worker application the user must have a "pet sitter certificate" from an accredited source. After receiving the certificate Connie is now able to finish registration and submits the form agreeing to a background check, rules & regulations form and signing with an e-signature. With the form submitted all Connie needs to do is wait for a response from CatDog, accepting or denying the request.
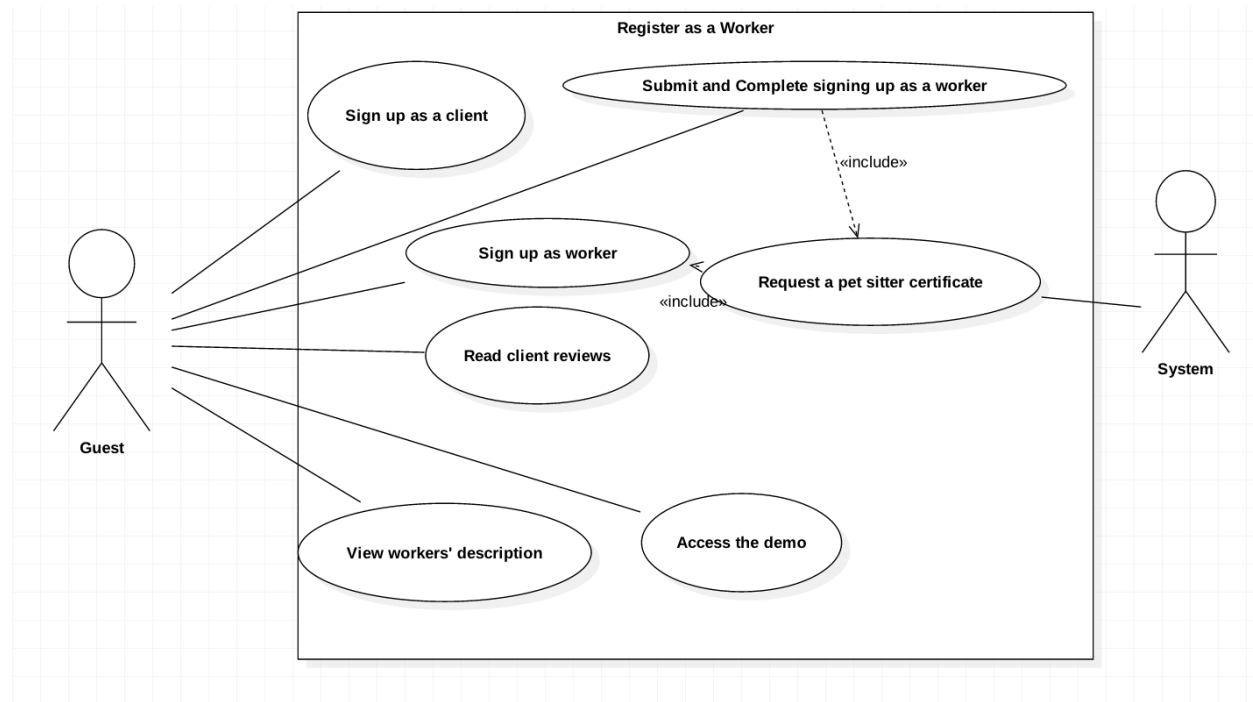
Use case diagram 4: Guest Sign Up as a worker

3-List of main data items and entities:

Admin: A user chosen by the owners of CatDog team that has access to all users contact information and booking information overseeing and managing the users.

Registered User: A Client or Worker who has signed up into our website with proper information and has access to different functionality depending on his role.

Client: A registered user who is looking for a worker for a pet sitting service. The Client has access to contact only the worker who requested to book a client.

Worker: A registered user who provides pet sitting service. Has access to search for clients based on the availability and location.

Guest: An unregistered user who does not have an account on the website. User can view some of the posts on the site and the functionality of the application. But guest does not have access to contact or post anything.

Pet: A client's pet that potentially need to be taken care of by the worker.

Post: A client's post seeks a pet sitting service from workers by notifying them, and it includes the date period and location for the service.

Post a review: Clients evaluate and score the pet sitting provided by workers after the job is done.

Report:
- **Report a Worker:** Client writing a report to send to an admin about the worker if any misconduct or policy violation happened during the job
- **Report a Client:** Worker writing a report to send to an admin about the Client if any misconduct or policy violation happened during the booking or the job.

Book a Client: The worker would book a client's post, and it notifies the client for potential workers.

Demo: An interactive tutorial for Guest users to be able to get an understanding of how clients and workers are using the website.

Support: Service to help all levels of users on the site in case of any help the user needs or if any problems occurred.

Profile: Information about the user, and available to both Client and Worker.

Client: Required information needed about the Client's pet and a short bio about the pet itself.

Worker: Required information about the Worker itself, and a short bio to inform or explain themselves to the Clients.

Pet inquiries: This is mainly used by the worker as help book in case of any problems. Required information for setting up the pet profile for the clients. Client needs to answer some question in regards of the pet's health insurance, diet restriction, pet interactions with other dogs and any other information that the worker needs in case of any problem with the pet.

Certification: Workers needs to have valid Pet Sitting Certification which can be acquired by any valid institution in order to sign up and work on our site.

4-Initial list of functional requirements:

Guest:
1. Guests shall be able to sign up and create an account on the website.
2. Guests shall be able to access a demo tour of the website.
3. Guests shall be able to get support from admin.
4. Guests shall be able to read clients reviews.
5. Guests shall be able to skip the demo.
6. Guests shall be able to use search bar.

Client:
7. Clients shall be able to sign in to the website.
8. Clients shall be able to log out from the website.
9. Clients shall be able to get support from admin.
10. Clients shall be able to create posts.
11. Clients shall be able to book a worker.
12. Clients shall be able to review a worker.
13. Clients shall be able to create Pet profiles.
14. Clients shall be able to delete Pet profiles.
15. Clients shall be able to report a worker.
16. Clients shall be able to use search bar.
17. Clients shall be able to pay the worker through the website.
18. Clients shall be able to change their password.
19. Clients shall be able to cancel booking.

Workers:
20. Workers shall be able to sign in to the website.
21. Workers shall be able to log out from the website.
22. Workers shall be able to access notification.
23. Workers shall be able to get support.
24. Workers shall be able to book a client's post.
25. Workers shall be able to report a client.
26. Workers shall be able to use search bar.
27. Workers shall be able to receive their payments through the website.
28. Workers shall be able to change their password.
29.

Administrator:
30. Administrators shall be able to sign-in to the website.
31. Administrators shall be able to log out from the website.
32. Administrators shall be able to cancel a booking.
33. Administrators shall be able to ban worker/client users.
34. Administrators shall be able to contact worker/client users.

35. Administrators shall be able to review/accept client's pet inquiries.
36. Administrators shall be able to accept or deny a worker's registration.

5-List of non-functional requirements:

Functionality:
1. The site should be developed and deployed using the stack tools and servers that was approved by the Class CTO.
2. Each WWW page needs to have a functional navbar and search bar with the logo included at the top of the page.
3. Guest user should be able to see the functionality of the website in a demo before signing up.
4. Application UI shall be simple and efficient and easy to use for the user.
5. Application shall be very easy to use and intuitive
6. Application shall be hosted and deployed on Gcloud client server as specified in M0.
7. Application shall be optimized for standard desktop/laptop browsers.
8. All users should be able to contact support.
9. Client should be able to contact Admin or Worker in case of emergency.

Compatibility:
10. Site should have a logo to be displayed next to the title in every browser.
11. The site shall be compatible with the latest version of Chrome browser (77.0.3865.90)
12. The site shall be compatible with the latest version of Firefox browser (68.0.1)
13. The site shall be compatible with the latest version of Safari browser (5.1.7)

Performance:
14. Loading time for site shall be less than 10 seconds for any page.
15. Search bar result should be shown in less than 10 seconds.

Security:
16. Registered user should be able to login with the credentials it made during sign up.
17. Client should input his/her name, address and driver's licence # to be collected as data.
18. Client's pet needs to be California licensed and the ID # needs to be inputted into the data. data.
19. Guest user should not be able to see any live data before signing up.
20. Registered user should be ab
21. Registered user's password should be encrypted and saved in the database.
22. Worker should input his name, address, and driver's licence #, and pet sitting certification to be collected as le to change their password if needed.
23. Admin should be able to ban workers and clients if needed.
24. Admin should be able to modify the bookings if requested by the client.

Coding Standards:
25. Developer should develop code to be easy to read.
26. Methods/functions should have one and only one purpose.
27. Developer should be commenting on the specific methods on his/her code.
28. Developer should be consistent in the naming convention of variables.
29. Back-End developer should develop noncomplex api.
30. Developer should write test cases for their functions.

Layout:

31. Site should have logo in the tab bar.

32. Website should be professional looking.

33. Website should be user-friendly.

Data Integrity:

34. User's data shall be inputted into MYSQL database.

35. Data in the data base should be back up every week.

Capacity:

36. The server storage shouldn't exceed 80%.

37. No pictures bigger than 2 Mb should be uploaded onto the server.

Reliability:

38. Inform the users if the website is going to be down for maintenance.

39. If the server is down, it should be restarted and back on running in less than 1 hour.

40. Pay functionality shall not be implemented.

6-Competitive Features Analysis:

Feature	Rover	TaskRabbit	The animal Nanny	CatDog
Search Filter	+	-	-	++
Specific for animal sitting (cats and dogs)	-	-	+	++
security	+	+	-	+
UI Simplicity	-	+	-	++
Map Usage	+	+	-	+

+: feature exists
++: feature is superior
-: feature does not exist

Summary of the competitive analysis:

Our goal for this application is being ahead of our competitors. After doing some research on different websites related to pet care many were lacking a useful search bar. Our goal is to implement an efficient search bar with minimal filters for the client and worker to be able to find his/her need as fast as possible.
Making our search bar simple and minimizing our filters, we allow the client and worker to reach and receive their desired outcome in a more efficient manner. Compared to our competitors who bombard the users with excessive filters. Along with removing unnecessary specifications (and replacing them with more general requirements /needs). And lastly our goal in our search engine is to represent the best result for the client or worker depending on their needs. As an example, clients who look for a worker in their area can use our search engine and view our best rated workers available in their area.
Related to the rest of the websites in our research we discovered the lack of pet compatibility between sitters, it seemed to be more of a match between the sitter and client rather than what would be better for their animal. Our goal is to service mainly the pet by creating an animal profile instead of having the focus on the client, but still having the client needs in mind.
With security, we will have the sitters upload their California ID information in our database. And, to have a good and reliable worker in our website we are a requiring mandatory certification from the workers during the registration and sign up.
Lastly, we plan to implement a map function for the worker to show listings that are available to clients in their area.

7-High-level system architecture and technologies used:

- Sever Host: Google Compute Engine
- Operating System: Ubuntu 16.04 Server
- Database: MySQL 8.0.17
- Web Server: Apache
- Server-Side Language: JavaScript
- Additional Technologies: Web Framework: React, Node.JS, Express
- IDE: WebStorm Jetbrains/ Visual Studio Code
- Web Analytics: Google Analytics

8-Team:

Team member	Position
Tahar Touati	Team lead / Github Master
Amir Anjomshoaa	Back-end Lead / Database master
Melissa Estrada	Front-end developer
Ivan Briseno	Front-end Lead
Xiaopeng Rong	Back-end developer / Database developer

9-Checklist:

Checklist Item	Status
Team found a time slot to meet outside of the class	Done
Github master chosen	Done
Team decided and agreed together on using the listed SW tools and deployment server	Done
Team ready and able to use the chosen back and front end frameworks and those who need to learn are working on learning and practicing	Done
Team lead ensured that all team members read the final M1 and agree/ understand it before submission	Done
• Github organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)	Done