

SW Engineering CSC648/848 Fall 2015

Milestone 1

BiteLine

Team 5

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History Table

V1	Initial Doc	September 30, 2015
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1. Executive Summary:

BiteLine is a web application that enables customers to make table reservations based on how busy a restaurant is. We consider ourselves to be the “Priceline” of restaurant reservations. Our main advantage is that our service gives users the ability to find quality dining options at discounted rates while simultaneously boosting the business of any subscribing restaurant. By using BiteLine, a restaurant can fill up empty tables, waste less time on the phone, and offer promotions and discounts to the subscribing customers. Customers of BiteLine can use the site to browse for deals that are offered by restaurants, reserve a (non-specific) table easily, and learn about restaurants before selecting a desired one. The site aggregates real-time table availability from a pool of designated restaurants. Customers can add a note to reservation so that the restaurant can better accommodate the customer.

We are a small group of passionate web developers who are excited to contribute to the dining industry. We are committed to publishing efficient and elegant solutions to meet the demands of this ever-changing industry.

2. Use Cases:

Customer: After both getting home from work, Brett and his wife Björk, love to eat out at local restaurants in their neighborhood in San Francisco. They also prefer their favorite restaurants on quieter, less busy nights. More often than not, by the time they choose a restaurant to dine at, there are either no available tables or the restaurant is simply too busy for their liking. Instead of calling several different restaurants to inquire about reservations, Brett decides to enter his location on BiteLine, which displays to him all nearby restaurants, the table availability for each, any promotions offered at that time and most importantly the ability to reserve a table right away. Along with the displayed information for this specific restaurant, the search results also show similar restaurants that are currently offering promotions.

Hosts: On a very busy Friday night at Mario's Dining, Jill, the host, can use the simple interface of BiteLine to check the reservations of incoming customers. One couple that has a 6:30pm reservation arrives at the restaurant at 7:00pm. Jill is already able to see their reservation displayed on the interface in a section for expected guests. Another couple shows up an hour early and Jill is able to quickly search for their reservation by name or reservation time.

Moreover, Jill can see a notification icon on the side representing customers who have made requests during reservation. When she's less busy, she wants to check reservation notes for special requests from the upcoming customers so that the restaurant can prepare appropriately. Since the restaurant gets busy during dining time, Jill will expect at least the above reservation features and information to show up on her Login page.

Owners: Mario, a new business owner of Fine Italian Dining wants to promote his business by offering discounts for first time customers. Mario decides to subscribe to Biteline, which enables him to fill his empty tables by displaying them on the application and offer discounts for customers. Using Biteline, he is able to create an offer that specifically targets first-time customers so that he can reach out to people that haven't yet experienced "Fine Italian Dining". Mario can also use BiteLine to post images and short descriptions of his restaurant and its food for advertising purposes. Hosts and hostesses are easily added to the system using the intuitive BiteLine interface.

Administrator: Keith is the site administrator of ***BiteLine***. First and foremost Keith deals with real-time technical issues that are coming in from Restaurant owners and users alike. For instance, Jim, the restaurant owner, unintentionally put a 50% promotion for all of his meals and can't seem to figure out how to remove the promotion. The restaurant owner would be able to contact Keith and then Keith would have access to alter the content of the website and fix the issue. However, Keith does receive urgent requests from restaurant owners, sometimes. Keith wants a feature in the restaurant owner page that a restaurant owner can choose "Urgent" when sending the request. This "Urgent" flag could send a special notification to Keith, so that he has the ability to deal with the request right away. In order to keep users updated, she has to manage tasks in a timely manner and have a organized interface in order to do so. Therefore, Keith expects user messages in her login page to be categorized into customers and restaurants owners. In this way, she can help users based on priority of the technical issue.

3. Data Definition/glossary :

BiteLine – The name of the site.

Customer – Users who wants to reserve tables at restaurants and find promotions.

Owner – Users who are restaurant owners (or business partners of the site).

Host – Employees of restaurants who uses the website to assist in upcoming customers.

Administrator – Specialist who provides technical support for any other users.

Registered User – Become a member of the site and have independent user page and account.

Customer Page – For the registered or unregistered user of the site. Search bar and navigation links available. Customized page for registered user.

Owner Page – For restaurant owner who has registered a restaurant account. Shall show their restaurant details, current reservations, promotions, images, and any other relevant information for the business owner.

Host Page – For restaurant employees who are registered as a host. Shall have functionality to find reservations based on time or search, as well as the ability to add new reservations.

Administrator Page – For people who have registered as site administrator. Shall have all of the same interfaces as the other pages, but the ability to edit the layouts and content.

Urgent Flag – A flag attached to a message when restaurant owner makes urgent request for technical help.

Restaurant - One of the designated restaurants that has signed up for the web-service.

Priceline - A hotel reservation website modeled similarly to BiteLine

4. List of functional specs:

1. Customer

- Customer shall be able to use the website without having to login.
- Customer shall be able to create an account.
- Accounts shall consist of email & password.
- Customer shall be able to login to the website.
- A logged in customer shall have a personalized home page.
- Customer shall be able to edit their account.
- Customer shall be able to delete their account.
- Customer shall confirm their account creation through email.
- Customer shall be able to decline the account creation within the confirmation email.
- Customer shall be able to make/change/cancel reservations.
- Customer shall be able to post reviews.
- The website shall be easy to use by average customer without additional training.
- Privacy of customer shall be protected and all privacy policies will be appropriately communicated to the users.
- Customers shall be able to search for nearby restaurants by entering a location.
- Site shall have a default location.
- Site shall only display results within San Francisco

2. Host

- Host shall be able to see upcoming/expected reservations on their home page.
- Host shall be able to search for reservations by time and name.
- Host shall be able to browse reservations by time.
- Host shall be able to create/cancel reservations.

3. Restaurant owner

- Restaurants shall be able to register and upload information about themselves to subscribe to the service.
- The website shall follow business rules in order to cooperate with restaurant owners.
- Owner shall be able to create/manage host accounts.
- Owner shall be able to add promotions to their restaurant.
- Owner shall be able to contact the administrator through the site, with the option to mark their help request as urgent.

4. Admin

- Admin shall be able to see help requests by restaurant owners and users.
- Admin shall be able to respond to help requests by restaurant owners and users.
- Admin shall be able to manage restaurant and user accounts.
- Admin shall be able to edit reviews and other posts on the web site.

5. List of non-functional specs:

1. Performance

- The website shall have fast performance time with responses in less than 5 seconds to provide smooth user experience.

2. Expected load

- Site shall be able to serve at least fifty user accounts, five host accounts, and five owner accounts concurrently.

3. Security requirements

- Site shall be secure from unauthorized business trying to make contact to users by any means.
- The website shall guarantee the correctness of information in transaction.
- The website shall inform users about legal requirements that must be followed.
- The website shall be responsible for users' privacy issues.
- The website shall have authorization levels for different users.

4. Storage

- The website shall categorize historical data and user data.
- Data shall be stored in the database on the class server in the team's account.

5. Availability

- The website shall provide reliable customer services to resolve user's issues and questions.

- The website administrator shall respond to user questions within twenty-four hours.
- The website shall not perform upgrades or maintenance that requires the system to be offline during the business hours of restaurants.
- The site shall provide FAQ pages for general issues.

6. Maintenance

- The website shall be updated and maintained regularly via analysis of historical data usage of users.

8. Non-Functional Specs Based on User Roles:

- Host/ Hostess:

- Host/hostess shall be able to review a daily calendar.
- Host shall be able to check and greet incoming guests.

- Site Administrator:

- Site administrator shall deal with typical admin duties like managing user registrations etc.
- Site administrator shall help restaurant owners with technical issues on posting and updating restaurant info.

9. Supported Browsers

- Chrome - versions C44, C45, C46
- Firefox - versions FF39, FF40, FF41, FF42
- Internet Explorer - versions IE9, IE10, IE11, EDGE

10. High-level non-functional specifications that MUST be adhered to (these describe how the service is delivered):

- The application shall be developed using class provided LAMP stack
- The application shall be developed using pre-approved set of SW development and collaborative tools provided in the class. Any other tools or frameworks have to be explicitly approved by Prof. Marc Sosnick on a case by case basis.
- The application shall be hosted and deployed on Amazon Web Services as specified in the class
- The application shall be viewable in a standard desktop/laptop/mobile browser, and shall render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome and IE.
- The application shall be served from the team's account
- The language used shall be English.
- Google analytics shall be added for major site functions.
- The website shall prominently display the following text on all pages "SFSU Software Engineering Project, Fall 2015. For Demonstration Purposes Only". (Important so as to not confuse this with a real application).
- Modern SE processes and practices must be used as specified in the class, including collaborative and continuous SW development

6. Competitive analysis:

Feature	Table8	OpenTable	Resy	BiteLine
Login option	+	+	+	+
Search by location	+	+	+	+
Payment for table/reservation	+	-	+	-
Promotion offerings	+	-	-	++
UI accessibility	+	+	-	+

+ feature exists; ++ superior; - does not exist

Summary: What makes BiteLine unique is that it gives its users the ability to find quality dining options at discounted rates while simultaneously boosting the business of any subscribing restaurant. In addition, restaurants are able to specify their discounts based on real-time table availability. Another advantage that competitors lack, is allowing the user to add comments attached to the reservation. The site will be showing restaurants only in San Francisco, unlike some competitors that offer services nationwide. The user will be able to book a table without being required to create an account and login. Unlike some competitors that are based on a pay-for-table model, the user will not be asked to pay for booking a table. Some competitors do not offer promotions, however we think this feature would interest more users. BiteLine is a service that uses a win-win model both for the customer and the business owner.

7. High-level system architecture:

1. System

- Linux
- Apache
- MySql
- PHP
- jQuery
- HTML/CSS/Javascript

2. API

- Google APIs

3. Tools

- Netbeans
- SVN

4. Framework

- Bootstrap

8. Team:

<u>Name</u>	<u>Initial Role</u>	
George Jone	Front end	Team Lead
Steve Pedersen	Front end	Tech Lead
Jacob Abba	Back end	
Abdullah Alnamlah	Front end	
Darin Vergara	Back end	
Puyang Yu	Back end	