MyWeekend: *Scalability*

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1 Overall Scalability

By rebranding from Yumkin to MyWeekend, the application will not only be used for planning meal outings, but for planning your entire weekend. We believe expanding the niche role the application plays into a larger organizational and activity-planning tool will promote the usage of the app. We also feel that this will target younger demographics that promote the usage of productivity-enhancing tools. The users could benefit from the application's built-in organizational features aimed to save time that would have been spent using multiple different apps. Both mobile app veterans as well as individuals with limited tech smarts can use the features provided in the application.

This report aims to describe our intentions for the product if it succeeds. After the user base increases exponentially and users begin to use MyWeekend on a regular basis, the software that has been designed must scale with the larger traffic. Communication between groups becomes more essential to the success of the product, and the reliability of the product becomes a staple for growth.

Two aspects of the product must be scaled for successful growth: the software itself and the business model by which the product generates revenue. As you read, note that the software's scalability for the current feature-set is actually quite simple, whereas the business process must adapt to the user base and the revenue-generation. Therefore, the business model scalability is far more crucial to the success of MyWeekend.

2 Scalability of Software

MyWeekend enables users to sort their friends and activities by group. By virtue of enabling groups, scaling of software for the user base is already guaranteed. As more users join, they will be incorporated into groups by their friends. This is important for several reasons. First, it means that a new user in the product will not directly affect the performance. This is because the user may only be included in certain groups. Therefore, performance is only affected when a user accesses that group and modifies the schedule. This limits the amount that one user can weigh down and impact on the software.

Second, the number of operations that MyWeekend currently offers is not algorithmically complex. The operations must calculate timings and days for each user. The run-time is linear for almost every possible feature in the product, which is further reduced by grouping. As such, scaling the software is relatively easy until further features are incorporated into the product.

In terms of the technological details, MyWeekend will primarily focusing on mobile app development as this venture scales as it fits well in a mobile-first world. In addition, we will expand our web app since it will allow MyWeekend to capture users that are not strictly Android or iOS mobile devices.

Thus, the front-end for mobile is to be built in their native environments, namely iOS and Android. Using frameworks such as Spring or Hibernate, along with iOS frameworks could optimize the creation of the applications. Separate teams can develop these two.

On the web side for MyWeekend, we are focusing on building the front-end with HTML5, JavaScript, and CSS3. In more detail, we will be utilizing Location Services and Yelp's API. Furthermore, in terms of scaling out the web app, we will be mainly building the front-end with Backbone.js as our way of organizing our MVC framework. It's very easy to use as heavily relies on JavaScript functions to piece in template HTML into our source code for ease of data binding. In addition, to get us started very rapidly, we will be using Bootstrap's grid framework and many of their CSS components to get MyWeekend

off the floor fast. This will allow the web app to look clean and be responsive on all major mobile devices. This is especially helpful since we are planning on using MyWeekend's web app as a catchall for non-mobile users to capture that market as well.

In terms of our back-end system, we use Parse. Perhaps we will eventually move towards a more flexible back-end environment for development as the scale of the app grows exponentially large, but Parse seems like a very optimal framework for us at the moment to build our back-end system. It has a volume-pricing model, so development with Parse will essentially be cost-free, and it has many third-party integrations such as Mailchimp's automated mailing service and Twilio's SMS service. Using Parse to handle our back-end (database, server-side scripts, etc…) is also useful since we will be able to use Facebook's login SDK as Facebook owns Parse, and it will handle user data in a more meaningful and efficient manner.

These technology choices enable highly impactful software as more users and clients depend on MyWeekend. A greater efficiency for scalability is in the organization of the software. We believe that an MVC implementation would enable the greatest amount of efficiency in development. The organization can naturally split developments teams into back-end, front-end, and application. Development of the product as we scale becomes much easier to manage when specialty teams are created. For instance, the production support sub-team in the back-end systems group can deal with any back-end issues. These sorts of dedicated organizations for both management and development will allow us to scale the separate aspects of the software in an efficient and predictable manner as we build out more features.

3 Scalability of Business Model

Scaling the business model will require the most effort in order to ensure success. This is because the technologies we use and the product's feature set are not complex in manner. As such, scaling the software is not the crux of the product. The organization of the product and branding will entirely determine the success of MyWeekend.

As more users begin to use MyWeekend, we will be able to convince more local businesses to advertise in our software. The benefits for our clients are far more substantial as we gain users. In a sense, the product's revenue generating scheme is exponentially proportional to the number of users that use the software. A larger user base may even enable the organization to negotiate discounts for users that use MyWeekend. This would allow certain restaurants to promote themselves through our product, and it enables them to separate themselves from other restaurants in MyWeekend by offering discounts to users.

This relationship is two-way. More restaurants that join MyWeekend would also convince users to use the software more. Organizing events are much easier when options are available to the user. As such, we believe that the two essential keys to success for MyWeekend are a larger user base and larger location availabilities.

Furthermore, as the user base grows at an exponential rate, we will need to keep in mind the exponential benefits of having more local businesses advertise and market to user groups on MyWeekend. While it is considered advertising revenue for MyWeekend, it does still provide a strong level of benefit to users as well. Having local businesses promote their services to individual groups serves as an idea-generator for weekend activities that users normally would not hear about. Thus, we will need to scale our business and initiatives to cater towards the needs of local businesses, and determine the features that they would find useful as well so that more local businesses sign up. Perhaps, in addition to users signing up under a free "individual" role, local businesses can sign up as a paid "business" role. Users will still be able to use MyWeekend for quick and easy weekend planning with their friends, while businesses will be able to have a new set of features for promoting their products and services.

5 Ensuring Success

As the number of users and clients for MyWeekend grow, we will heavily rely on the technological and business scalability plans as mentioned earlier. Major components that we need to be aware of are

continuing the exponential increase in our active user and client base, which means that we need to focus heavily on retaining both as well. This will be treated as top priority in the scaling process. To address this moving forward, our plan is to continually garner valuable user feedback to improve and add new features and designs. Finally, our overarching initiative that aligns all future development is to create a community that fosters efficient weekend activity planning with friends and family.