

Lynkem - Project Proposal

10.31.2018

SD INC

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Table of Notifications

This Table represents the contacts in both companies as assigned currently.

Project	Name	Company
Lynkem	Tim Nero	Lynkem
Client Interface (Business)	Rob LaPointe	Software Developers Inc.
Client Interface (Technology)	Sachin Nayak	Software Developers Inc.

Functional Specifications

Primary Website

The primary website will have the following pages

1. Homepage
2. Sign up
3. Sign in
4. Forgot Password
5. Reset Password
6. Features
7. Pricing
8. About Us
9. Support

1. Homepage

This page will basically contain information about the platform, benefits etc etc

Note: Client will provide the content to SDI for this page.

2. Sign up

The user will have the option to create an account as a Brand or Retailer. They will Sign up via Facebook or Custom Sign up by entering mandatory fields like First Name, Last Name, Email address, Password (min 8 alphanumeric with special characters), Industry Type, Company Type (Brand or Retailer). If user sign up via Facebook the system will try to pull the First name, Last Name and Email (note: some user sign up on facebook using their phone number) from the Facebook account but the user will still have to select the Industry Type, Company Type (Brand or Retailer).

When user clicks the "Register Now" button the system will validate the data entered

by the user for eg: Blank fields, Valid Email Address etc etc. If successful they will be redirected to the Thank you page. If invalid data appropriate error message will be displayed asking the user to fix the details before proceeding further.

If the user opts for Custom Sign up, a Thank you for Signing up email will be send to the user along with the link to verify / activate their account.

If the user Sign up via Facebook a Thank you for Signing up email will be send to the user but without the verify / activate their account link.

An email will be send to the RMM email address (of clients choice) with the account details. An internal Platform notification will also be send to the RMM Admin(s) notifying of new Sign up.

Note:

- SDI will discuss with the client if any other information / fields needs to be added in the Sign up page.
- Client will provide SDI the "Thank you for Signing up" email content that will be send to the Registered users.

3. Sign in

The user can login via Facebook or login by entering the email address & password. The system will check the credentials in the database. If successful they will be redirected to the Dashboard screen or error message will be displayed to enter correct login credentials.

Note: Do we need to lock the account after x number of unsuccessful attempts?

4. Forgot Password

The user will have the option to reset their Password by entering their account email address. The system will check the email address in the database. If valid, an email will be send to the user with the link (the link will be valid for ONLY certain period of time for eg: 2 days) to reset password. If not found an error message will be displayed.

Please note: The Forgot Password is applicable ONLY for Custom Sign up users not for users who Sign Up via Facebook.

5. Reset Password

If the link is valid the user will enter New Password & Confirm New Password field to reset their Password OR error message will be displayed if the link has expired. Once the password is reset the platform will login the user & redirect him/her to the Dashboard screen.

6. Features

This page will basically contain information about the features the platform provides.

Note: Client will provide the content to SDI.

7. Pricing

This page will basically contain pricing information i.e different types of packages with description & cost.

Note:

- Client will provide the content to SDI.
- SDI will discuss with the client in regards features, functions, limitations that needs to implemented for each packages types.

8. About Us

This page will basically contain information about the company, team etc etc.

Note:

- Client will provide the content to SDI.

9. Support

This page will be a form where the user can fill basic information like First Name, Last Name, Email Address, Phone (Optional), Comments. Once submitted a email will be send with the details to RMM email address (of clients choice) & a Thank you for Contacting message will displayed to the user .

Brands Portal

The following modules will be developed for this MVP

1. Dashboard
2. Brands Management
3. Users Management
4. Retailers Management
5. Marketing/Promotions Management
6. Settings
 - a. Account
 - b. Billing
7. Reports

1. Dashboard

The dashboard will provide summary information for several Key Indicators. SDI will work with the client to list down all the key indicators that needs to displayed on the Dashboard. Some of Key Indicators could be

- Number of Active Retailers
- Number of Active Campaigns
- Overall Sales
- Total Sales (Graph) Month/Year wise
- Overall Conversion rates
- Conversion rates (Graph) Month/Year wise
- Overall Leads
- Total Leads (Graph) Month/Year wise
- Frequency i.e Traffic
- User Activities

Note:

- Most of the data i.e Key Indicators will be pulled using Facebook Ads Insights APIs.

2. Brands Management

This menu item will be displayed only to Company Admins. The Brands

Management menu item will show a UI that lists all Brands of that company on the screen in a row/column format. Columns will include:

- Brand Name
- Brand Address
- Brand Phone number
- Active/Not Active

Company Admins will have the option to add/edit/delete Brand records. There will be a sorting and filter control at the top.

Note:

- SDI will discuss with the client to list down all the fields that needs to added while creating a Brand.
- When a Company Admin login for the very first time we will take them directly to the Create Brand page.
- An internal Platform notification will be send to the RMM Admin notifying when new Company/Brand Account is created.

3. Users Management

This menu item will be displayed only to Company & Brand Admins. The Users Management menu item will show a UI that lists all user records on the screen in a row/column format. Columns will include:

- First & Last Name
- Email Address
- Brand Name (This column will be displayed only to Company Admin)
- Role (Company Admin, Brand Admin & Brand General User)
- Active/Not Active

Company & Brand Admins will have the option to add/edit/delete Users. There will be a sorting and filter control at the top. When an account is created a welcome email will be send to the User with account details. The menu items will be Active or greyed out based on the user role.

4. Retailers Management

This menu item will be displayed only to Company & Brand Admins. The Retailers

Management menu item will show a UI that lists all the Retailer records on the screen, in a row/column format. Columns will include:

- Business Name
- Brand Name (This column will be displayed only to Company Admin)
- Dealer Number
- Address
- Contact Email
- Phone Number
- Active/Not Active

There will be a sorting and filter control at the top. The Company & Brand Admins will have an option to send invites to their Retailers asking them to Sign up on this platform. An Invitation email will be send to the Retailer.

The Company & Brand Admins will also have an option to Activate/Deactivate Retailers if they don't want that Retailer(s) to see the Ads they have posted for that Brand.


The Brand Admins will receive an Internal Platform notification when a Retailer adds that Brand into their account so that Brand Admin can verify & Active/Not Active the Retailer account.

5. Promotions Management

This menu item will be displayed only to Company Admins, Brand Admins & Brand General Users. The Promotions Management menu item will show a UI that lists all the Promotions on the screen. Primary controls will include creating new promotions, edit (pencil icon) and delete (trash icon) existing promotions, turn promotions on and off (slider control), and sort the promotion view. Turning a promotion on/off determines whether the promotion will be shown to the Retailers or not.

When the add / edit icon is pressed, it will take the user to the Promotion Setup UI. In Phase 1 we will focusing only on Facebook and Instagram Ads. The Promotion Setup UI is divided into 3 Steps

- Promotion Header Information



A user will enter promotion header information to start building a new promotion or to edit an existing promotion. Once this information is entered the user is brought to the Ads Platform Selection by clicking the Next button.

- Ads Platform Selection

The Ad Platform Selection UI allows the user to select which platform they'll be placing the promotion. The Ad Platforms will be displayed in smaller tiles in this screen. Each smaller tiles will have controls for selecting the platform, progress bar showing status of the ad setup steps for that platform, and action buttons that allow to either Launch (start building) an ad or to Continue (pick up where you left off). The Review Promo button allows the user to review and post the promotions for their retailers to use.

The Ad Builder wizard will include two screens as part of the wizard used to build a promotion. For the MVP, we will be only be supporting ad building using the Facebook and Instagram platforms.

- Ad Creation (Facebook or Instagram)

The user will be able accomplish two things on the UI; Ad Type selection and Ad Settings.

At the top of the Ad Creation UI, the user will be shown Ad Types for the current ad platform to select from. Each Ad Type section will show a mock image of the Ad Type and a Checkbox to select that type. In the MVP, we will be offering 3 Ad Types for the Facebook and Instagram platforms; Single image, Carousel and Video. User will only be able to configure only one instance of each Ad Type.

Note: This UI will be built with the understanding that in the future, multiple instances of the same Ad Type can be added as well as additional ad types will be offered.

As the Ad Types are selected, the corresponding Ad Builder sections below will be locked/unlocked(grayed out). The Ad Builder section is where the actual Ads will be built using a combination of simple to use controls including:

- Text boxes to collect data fields

- Upload control to insert images or video
- A simulation of the ad shown on a mobile phone (see it as you build it view)
- Card navigation for carousel ads

A user would complete the Ad setup for each Ad Type filling out the required information and uploading content as appropriate. When they're done, they'll hit the Next button which will bring them to the Targeting UI.

- Targeting

Targeting UI will ask the user to enter targeting information for the Digital Ads. The INCLUDE/EXCLUDE sections will perform exactly as they do on the actual Facebook platform. When the user presses the Exclude People blue link, a new EXCLUDE drop down control appears dynamically, and when the user presses the Narrow Audience blue link, a new INCLUDE drop down control will be shown dynamically. These two drop down controls will get their content directly from the Facebook API. When the user presses the Next button, the wizard will return the user to the Ad Placements UI.

Note:

Based on the Targeting data, the platform will decide if the Ads will be displayed to the Retailers or not.

- Review & Publish Promotion

This screen will allow user to review the ad they just built and optionally Publish it. None of the fields are editable on this screen but Edit links (icon) will be displayed at appropriate places if they want to make any modification to the content before publishing.

When the Ad is Published a Platform Internal notification will be send to the Retailers (that matches the criteria) informing them that a new Ad is published which they can use to target their local market.

Note:

SDI will discuss with the client if any fields needs to be added while creating Promotions.

6. Settings

- Account

This menu item will be displayed only to the Company & Brand Admin. Here they will be able to update their Account details, Company/Brand Details & Notification Preference settings.

Note: SDI will discuss with the client to list down the fields that needs to added in the Account Settings page.

- Upgrade Subscription(s)

This menu item will be displayed only to the Company & Brand Admin. Here we will list down all the Brands (only to Company Admin) of that Company & the Subscription package name they are currently enrolled. The Company & Brand Admin will be able to upgrade/downgrade the Subscriptions of their Company and/or Brand account.

- Billings

This menu item will be displayed only to the Company & Brand Admin. The Billing UI will allow the Company and/or Brand to enter payment information. The Company Admin will have the option to select the Brands if they want to take care of the Billing for those Brands. In this case the Billing menu item will not be active for the Brand Admin.

This UI will connect with a 3rd party Payment Gateway that accepts credit cards & store all the credit card information in the 3rd party Payment Gateway Vault.

If the credit card is expiring or expired the platform will send notification to the Company and/or Brand Admin to update the credit card to continue their subscription service.

7. Reports (Low Priority)

SDI will discuss with the client to list down all the reports they want to provide to Company and/or Brand Admins. Some of the reports could be

- Performance Report
- Sales Report
- Conversion rates Report
- Leads Report
- User logs / Activities Report

Retailers Portal

The following modules will be developed for this MVP

1. Dashboard
2. Brands Management
3. Users Management
4. Marketing
 - a. Promotions
 - b. Checkout
 - c. Targeting
 - d. Budget
5. Settings
 - a. Account
 - b. Billing
6. Reports

1. Dashboard

The dashboard will provide summary information for several Key Indicators. SDI will work with the client to list down all the key indicators that needs to displayed on the Dashboard. Some of Key Indicators could be

- a. Promotions
- b. Budgets
- c. Brands
- d. Performance
- e. Overall Sales
- f. Total Sales (Graph) Month/Year wise
- g. Overall Conversion rates
- h. Conversion rates (Graph) Month/Year wise



- i. Overall Leads
- j. Total Leads (Graph) Month/Year wise
- k. Frequency i.e Traffic
- l. User Activities

Note:

- Most of the data i.e Key Indicators will be pulled using Facebook Ads Insights APIs.

2. Brands Management

This menu item will be displayed only to Retailer Admins. The Brands Management menu item will show a UI that lists all Brands that are associated with that Retailer on the screen in a row/column format. Columns will include:

- a. Brand Name
- b. Address
- c. Contact Email
- d. Phone Number
- e. Active/Not Active

Retailer Admins will have the option to add/edit/delete/Activate/DeActivate Brand from their account. There will be a sorting and filter control at the top.

Note:

- SDI will discuss with the client to list down the fields that needs to added when a retailer is associating a Brand into their account.
- When a Retailer Admin login for the very first time we will take them directly to the Add Brand page.
- An Internal Platform notification will be send to the Brand Admin notifying when their Brand is added by a Retailer. The Brand Admin will verify the details & approve/disapprove the Retailer account.
- An Internal Platform notification will be send to the Retailer Admin notifying when their Brand is approved/disapproved by the Brand Admin.

3. Users Management

This menu item will be displayed only to Retailer Admins. The Users Management

menu item will show a UI that lists all user records on the screen in a row/column format. Columns will include:

- a. First & Last Name
- b. Email Address
- c. Role (Retailer Admin & Retailer General User)
- d. Active/Not Active

Retailer Admin will have the option to add/edit/delete Users. There will be a sorting and filter control at the top. When an account gets created a welcome email will be send to the User with account details. The menu items will be Active or greyed out based on the user role.

4. Marketing

- a. Promotions

Retailers will use this UI to select the promotion(s) they'd like to run for the next upcoming month. The tiles represent individual promotions (marketing campaigns). A promotion is tied to a Brand. Each Brand can have one-to-many promotions. Brand tiles will only appear if they matches the targeting criteria set by the Brand Company & associated with the Retailer.

In order to manage promotions, each tile will provide a series of controls. These include:

- i. Brand image and logo
- ii. Number of promotions available
- iii. Indicator of whether the promotion is running or not
- iv. A control to add a promotion
- v. A control to stop a promotion
- vi. Ability to sort tiles by (1) most recent promotions offered, (2) by Brand Name

When the user clicks the Add Promotion link, they will be taken to the Promotion Preview Screen. The Stop icon will stop a promotion from running in the next month.

Promotion Preview Screen

The Promotion Preview window UI allows the user to view the content of an offered promotion. This will be displayed as a modal-type window that pops up on the Promotion Screen.

The image preview on the left side of the window shows a simulation of the ads shown on a mobile device. If the ad contains more than one ad type, there will be left and right navigation controls allowing the user to scroll through and preview each ad type.

The Contact details for the retailer will be displayed but this information is not editable. The Retailer Targeting details will also be displayed but not editable. The tabbed navigation on the top allows the user to preview the Ads on each of the selected platforms (Facebook & Instagram).

Shopping Cart Overlay

The Shopping Cart icon on the Promotion screen when clicked will list down all the Promotions in an overlay which the Retailer wants to run in the upcoming month. It will show one collection row for each promotion in a scrollable window. Each collection will show summary data for the promotion and thumbnails of the Ad Types selected. At the bottom there will be a Checkout button clicking on which will take the Retailer to the Checkout page.

b. Checkout Screen

The Checkout screen lists all the ads they've placed into their shopping cart. It will show a summary of all of the items in the cart along with some targeting and current budget information. This UI will also show the credit card information which they have saved on file so that they can confirm that they want that card to be billed. The Retailer will also have the option to change or use a new card if required.

c. Targeting

The Targeting UI allows a user to select their default targeting parameters that will be used for all of the ad placements on all platforms. The user would come here to make modifications to their ad target settings.

There will be two radio buttons, one that allows a pre-populated list of radius

distances and another that allows the user to enter a series of U.S., five digit zip codes, auto-separated by commas. To the right, some type mapping control (Google Maps?) would be used to show these areas. This should work exactly as it does on the ad platforms like Facebook or Google.

d. Budget

The Budget UI is where a Retailer user will set and change their monthly ad budget. The UI provides the following elements:

- i. The current monthly budget amount (editable)
- ii. A slider control that can also be used to set the monthly budget amount
- iii. A carousel control that shows the previous 5 months of budget amounts
- iv. Options for how Budgets are applied (NOT in Phase 1)

5. Settings

a. Account

This menu item will be displayed only to the Retailer Admin. Here they will be able to update their Account details, Retailer Details & Notification Preference settings.

Note: SDI will discuss with the client to list down the fields that needs to added in the Account Settings page.

b. Billing

This menu item will be displayed only to the Retailer Admin. The Billing UI will allow the Retailer to enter payment information.

This UI will connect with a 3rd party Payment Gateway that accepts credit cards & store the credit card information in the 3rd party Payment Gateway Vault.

If the credit card is expiring or expired the platform will send notification to

the Retailer Admin to update the credit card details.

6. Reports (Low Priority)

SDI will discuss with the client to list down all the reports they want to provide to Retailer Admins. Some of the reports could be

- a. Performance Report
- b. Sales Report
- c. Conversion rates Report
- d. Leads Report
- e. User logs / Activities Report

Platform Admin Portal (Low Priority)

The following modules will be developed for this MVP

1. Admin Users Management
2. Companies & Brands Management
3. Retailers Management
4. Billing Management
5. Settings
 - a. Systems
 - b. Accounts
6. Reports

1. Admin Users Management

This menu item will be displayed only to Platform Admins. The Users Management menu item will show a UI that lists all user records on the screen in a row/column format. Columns will include:

- a. First & Last Name
- b. Email Address
- c. Role (SDI will discuss with Client about User Roles)
- d. Active/Not Active

Platform Admins will have the option to add/edit/delete Users. There will be a sorting and filter control at the top. When an account gets created a welcome email will be send to the User with account details. The menu items will be Active or



greyed out based on the user role.

2. Companies & Brands Management

This menu item will be displayed only to Admins (based on user role). The Companies & Brands Management menu item will show a UI that lists all Companies & their Brands registered in the Platform. Columns will include:

- a. Company Name
- b. Brand Name
- c. Address
- d. Contact Email
- e. Phone Number
- f. Active/Not Active

Platform Admins will have the option to View, Activate and/or DeActivate Companies and/or Brands from the Platform. There will be a sorting and filter control at the top.

3. Retailers Management

This menu item will be displayed only to Admins (based on user role). The Retailers Management menu item will show a UI that lists all the Retailer records on the screen, in a row/column format. Columns will include:

- a. Business Name
- b. Brand Name (This column will be displayed only to Company Admin)
- c. Dealer Number
- d. Address
- e. Contact Email
- f. Phone Number
- g. Active/Not Active

Platform Admins will have the option to View, Activate and/or DeActivate Retailers from the Platform. There will be a sorting and filter control at the top.

4. Billing Management

If we are going with Stripe we would recommend to using Stripe's billing solution (<https://stripe.com/us/billing>) to manage the entire Billing Management process.

5. Settings

a. Systems

SDI will document the complete list once we get started with the development.

b. Accounts

Here they will be able to update their Account details like Change Password.

Note: SDI will discuss with the client to list down the fields that needs to added in the Account Settings page.

6. Reports

SDI will discuss with the client to list down all the reports they want to provide to Platform Admins. Some of the reports could be

- a. Revenue Report
- b. User logs / Activities Report
- c. Performance Reports (Brand, Retailers)
- d. Sales Reports (Brand, Retailers)

Technology Stack

Programming Language		
AngularJS	https://angular.io/	
NodeJS	https://nodejs.org/en/	
Database		
SQL Server or MYSQL		
CouchDB or MongoDB (Optional)		To log all the user activities data.

Microservice Framework		
Molecular	https://moleculer.services/	
AWS Services		
Amazon EC2 Amazon EC2 Auto Scaling Amazon RDS Amazon S3 Amazon Simple Notification Service (SNS) Amazon Cognito Amazon CloudFront Amazon Elastic Container Service Amazon Route 53 Amazon Redis Server		
Testing Tools		
mochajs	https://mochajs.org/	Unit Testing Framework
Selenium	https://www.seleniumhq.org/	
Cypress	https://www.cypress.io	
Automation Workflow		
Zapier API	https://zapier.com/developer/	

Resources

Resource		Duration
Team Lead	1	3 months
DB Analyst	1	2 weeks
Design + HTML	1	3 weeks
Programmers	4	3 months
QA	2	2 months
Server Admin	1	1 week

Investment details

Total cost = \$33,000.00

Note - Within this price SDI is offering an added 80 hours of work without fees to allow for functional changes without changes to pricing.

Payment and revenue sharing terms: All payment should be received through Intuit at www.sdi.la/bankpay

- 30% upfront at contract signing
- 30% 30 days after start date
- 30% upon completion and prior to officially going live

Warranty: SDI offers a 4 month warranty to fix bugs resulting from programming errors.