Business Requirements Document for <*ChefsWorld*>

Date: <5/1/2020>
By: <Qiuyu Luo>

Revision History

Revision number	Date	Reason for revision	Revised by
1	5/1/2020	Create initial document	Qiuyu Luo

ChefsWorld Scope Statement

Scope

- A search engine to search for recipes
- Ability to register and create an account
- Ability to make payment
- Ability to post recipes
- Ability to edit recipes
- Ability to make comments on recipes
- Ability to rate recipes
- Ability to make discussion in forum
- Ability to manage ratings, comments and recipes
- Ability to manage postings from forum
- Ability to flag users
- Ability to suspend and un-suspend users

Out of scope items

- There will be no ability to create a favorite list
- There will be no ability to make recommendations of recipes

Goal

To create a community site where top chefs around the world can exchange their recipes.

Objectives

- To build a website that holds thousands of good recipes from top chefs
- To cover various dish types and cuisines
- To have top chefs as main users of the website
- To be able to hold 10,000 users simultaneously
- To be able to hold 1,000,000 recipes on the website
- To build a user-friendly website
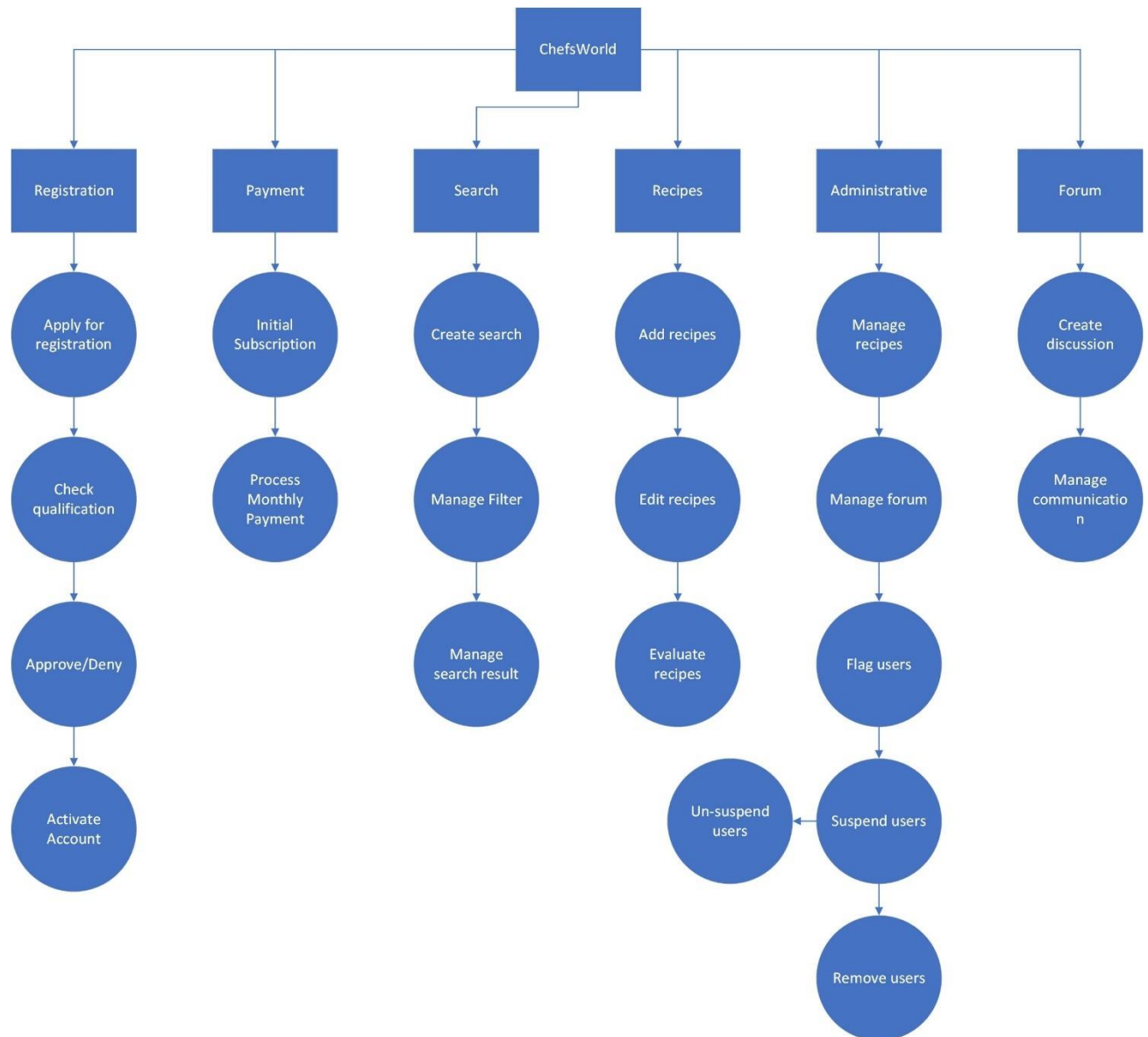- To go live in 8 months

Risks

The CEO of this new website travels a lot and can't always be available to the team, there can be time lag and finally it will affect the timeline. The stakeholder also has not done this type of project before, it requires more attempts to find the scalable model, which adds uncertainty to the project and may extend the timeline, cause a budget overrun and affect the scope.

Constraints

The system must go live in 8 months.

The system is constrained by a budget of $400,000.

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                              ┌──────────────┐
                              │  ChefsWorld  │
                              └──────────────┘

┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
│ Registration │ │   Payment    │ │    Search    │ │   Recipes    │ │Administrative│ │    Forum     │
└──────────────┘ └──────────────┘ └──────────────┘ └──────────────┘ └──────────────┘ └──────────────┘
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- **Registration**
  - Apply for registration
  - Check qualification
  - Approve/Deny
  - Activate Account

- **Payment**
  - Initial Subscription
  - Process Monthly Payment

- **Search**
  - Create search
  - Manage Filter
  - Manage search result

- **Recipes**
  - Add recipes
  - Edit recipes
  - Evaluate recipes

- **Administrative**
  - Manage recipes
  - Manage forum
  - Flag users
  - Suspend users → Un-suspend users
  - Remove users

- **Forum**
  - Create discussion
  - Manage communication

Functional Requirements

1. Registration

  1.1 Apply for Registration

    1.1.1 The system shall require the user[1] to create a username

    1.1.2 The system shall require that the username cannot include special characters

    1.1.3 The system shall require the user to create a password

    1.1.4 The system shall require the password to have at least 8 characters

    1.1.5 The system shall require the user to connect the account with an email

    1.1.6 The system shall verify the email of user

    1.1.7 The system shall require the user to submit qualification materials (education experience/working experience/resume)

    1.1.8 The system shall notify the user if any information is invalid

  1.2 Check Qualification

    1.2.1 The system shall allow the administrator[2] to check the qualification materials of the user

    1.2.2 The system shall require the administrator to submit comment on the qualification materials

    1.2.3 The system shall require the administrator to provide the vetting decision

  1.3 Approve/Deny

    1.3.1 The system shall notify the user the result of the application

  1.4 Activate Account

    1.4.1 The system shall notify the user the account is created

    1.4.2 The system shall allow the user to log in

    1.4.3 The system shall activate the account after first payment made

2. Payment

  2.1 Initial Subscription

    2.1.1 The system shall notify the user to initial subscription

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[1] "User": Any individual who is using/ intends to use the service of ChefsWorld.
[2] "Administrator": The staff of ChefsWord who is in charge of the corresponding functional area

2.1.2 The system shall determine payment amount

2.1.3 The system shall require the user to accept the payment agreement

2.1.4 The system shall require the user to add card information

2.1.5 The system shall validate the card information

2.1.6 The system shall require the user to provide billing address

2.2 Process Monthly Payment

2.2.1 The system shall send the user invoice each month

2.2.2 The system shall send transaction request to user's card issuer

2.2.3 The system shall notify the user whether the payment is successful

2.2.4 The system shall send the user a payment confirmation

3. Search

3.1 Create Search

3.1.1 The system shall require the user to log in first

3.1.2 The system shall require the user to enter what he wants to search

3.1.2 The system shall present the search hint

3.2 Manage Filters

3.2.1 The system shall allow the user to select dish types

3.2.2 The system shall allow the user to select cuisine types

3.2.3 The system shall allow the user to select cooking style

3.2.4 The system shall allow the user to search based on rating scores

3.3 Manage Results

3.3.1 The system shall return the search results based on filters

3.3.2 The system shall allow the user to sort the results by date

3.3.3 The system shall allow the user to sort the results by rating

4. Recipes

4.1 Add Recipes

4.1.1 The system shall require the user to log in first

4.1.2 The system shall allow the user to create a new recipe

4.1.3 The system shall require the user to submit at least one recipe each month

4.1.4 The system shall require the user to create a title for recipe

4.1.5 The system shall require the user to list ingredients, estimated cooking time, and direction of the recipe

4.1.6 The system shall require the user to add at least one tag (e.g. cuisine type) for the recipe

4.1.7 The system shall allow the user to add pictures to the post

4.2 Edit Recipes

4.2.1 The system shall allow the user to edit the content of the recipe after posting it

4.2.2 The system shall allow the user to delete the recipe posted by him

4.3 Evaluate Recipes

4.3.1 The system shall allow the user to rate each other's recipes

4.3.2 The system shall allow the user to leave comments under recipes

4.3.3 The system shall allow the user to reply the comments

4.3.4 The system shall not allow the user to give inappropriate ratings and comments

5. Administrative

5.1 Manage Recipes

5.1.1 The system shall allow administrator to delete the inappropriate recipes

5.1.2 The system shall allow administrator to delete the inappropriate ratings and comments

5.1.3 The system shall require administrator to provide the reason of deletion

5.1.3 The system shall notify the user if his ratings/comments/recipes are deleted

5.2 Manage Forum

5.2.1 The system shall allow administrator to delete inappropriate postings

5.2.2 The system shall require administrator to provide the reason of deletion

5.2.3 The system shall notify the user if his postings are deleted

5.3 Flag Users

5.3.1 The system shall flag the account of the user if the user doesn't post recipes on time

5.3.2 The system shall notify the user the account has been flagged

5.3.3 The system shall notify the administrator the account has been flagged

5.4 Suspend Users

5.4.1 The system shall allow the administrator to suspend an account

5.4.2 The system shall require the administrator to provide the reason of suspension

5.4.3 The system shall notify the user the account has been suspended

5.4.4 The system shall not allow the user to see recipes on the website

5.5 Remove Users

5.5.1 The system shall allow the administrator to remove the user

5.5.2 The system shall require the administrator to provide the reason of removal

5.5.3 The system shall notify the user the account will be removed

5.5.4 The system shall not allow the user to log in if the account is removed

5.6 Un-suspend Users

5.6.1 The system shall allow the administrator to un-suspend an account

5.6.2 The system shall require the administrator to provide the reason of canceling suspension

5.6.3 The system shall notify the user the account has been un-suspended

5.6.4 The system shall reactivate the function of seeing recipes for the user

6. Forum

6.1 Create Discussion

6.1.1 The system shall require the user to log in first

6.1.2 The system shall allow the user to create a post in forum

6.1.3 The system shall allow the user to add pictures

6.1.4 The system shall allow the user to adjust font

6.1.5 The system shall allow the user to insert the recipes from the website in the post

6.2 Manage communication

6.2.1 The system shall allow the user to reply a post

6.2.2 The system shall notify the user if the post has new replies

Non-Functional Requirements

1. Security

   1.1 The system shall require SSL

   1.2 The system shall adhere to best practice for transaction processing

   1.3 The system shall protect against breach of data

2. Performance

   2.1 The system shall respond within 3-4 seconds

3. Serviceability

   3.1 The system shall be user-friendly

   3.2 The system shall present language options

4. Storage

   4.1 The system shall require 100T of storage

5. Capacity

   5.1 The system shall be able to hold 10,000 users simultaneously

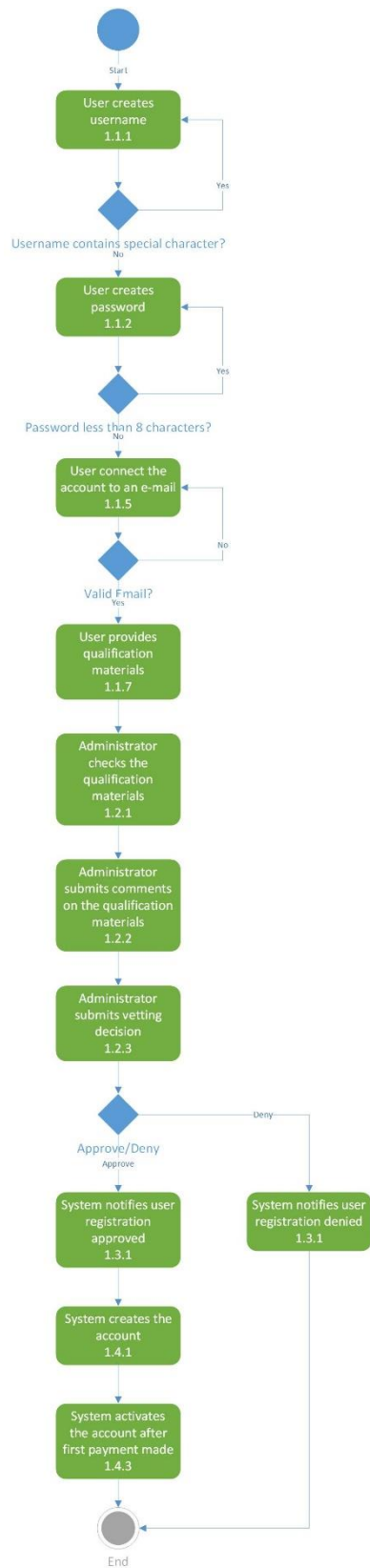   5.2 The system shall be able to hold 1,000,000 recipes on website

6. Recoverability

   6.1 The system shall maintain backups and all data can be recovered
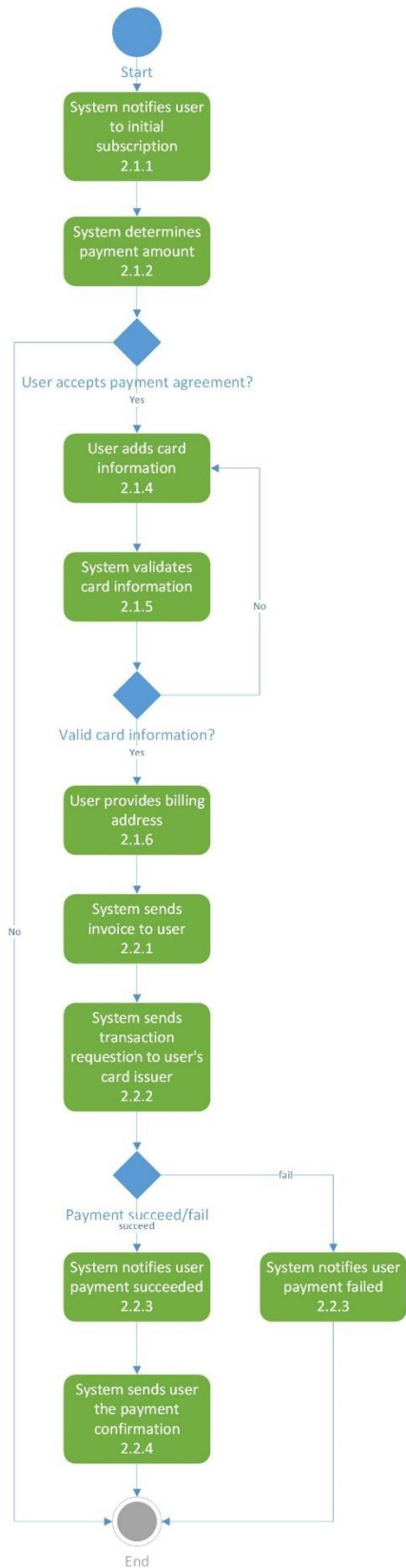
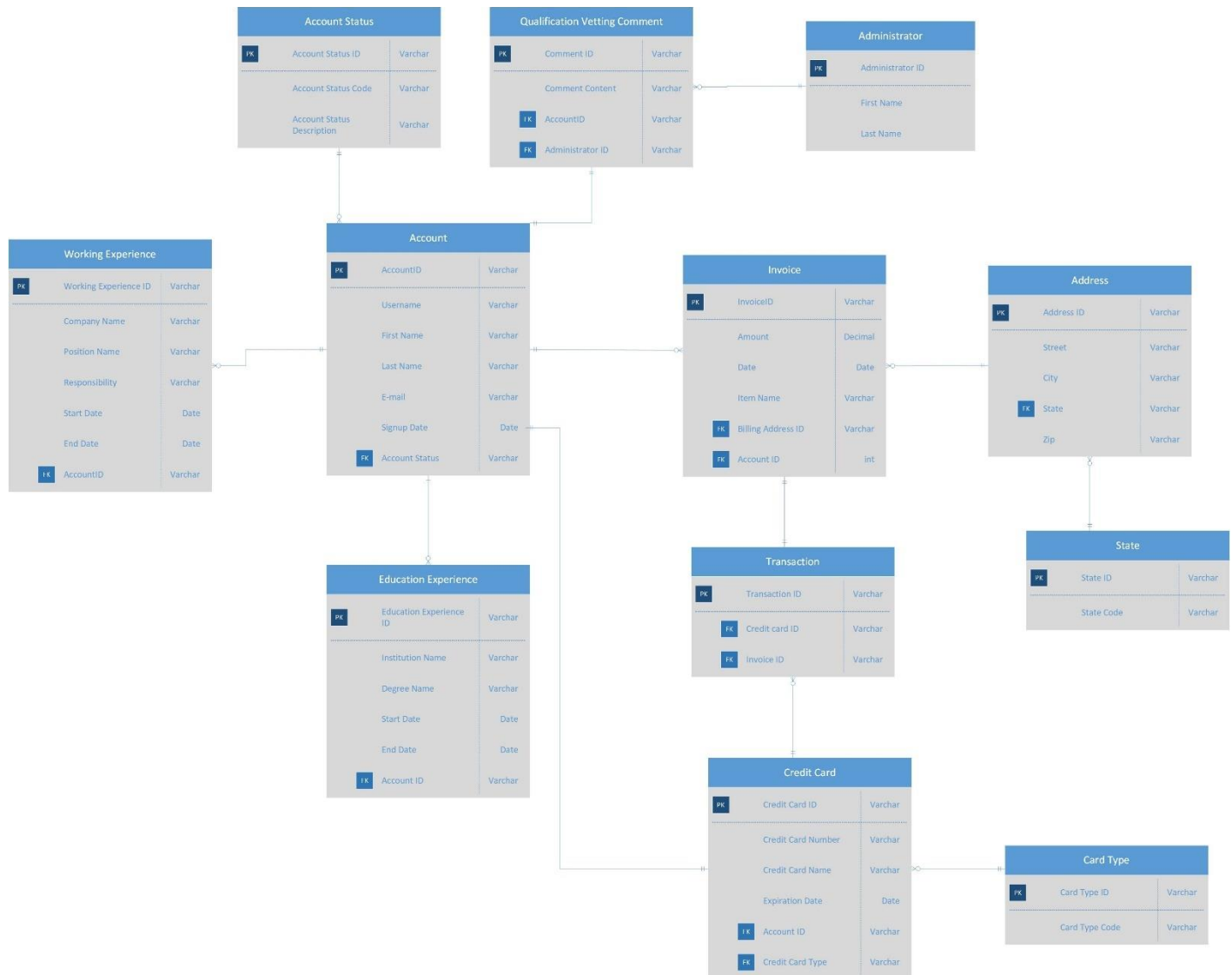**Stakeholders**

- Bob Stolard, CEO of ChefsWorld

Approval: _____

Activity Diagram – Registration

```
                    ( Start )
                        │
              ┌─────────────────┐
              │  User creates   │◄──────┐
              │    username     │       │
              │     1.1.1       │       │
              └─────────────────┘       │
                        │               │ Yes
                       ◄►───────────────┘
        Username contains special character?
                       No
              ┌─────────────────┐
              │  User creates   │◄──────┐
              │    password     │       │
              │     1.1.2       │       │
              └─────────────────┘       │
                        │               │ Yes
                       ◄►───────────────┘
          Password less than 8 characters?
                       No
              ┌─────────────────┐
              │ User connect the│◄──────┐
              │ account to an   │       │
              │  e-mail 1.1.5   │       │
              └─────────────────┘       │
                        │               │ No
                       ◄►───────────────┘
               Valid Email?
                       Yes
              ┌─────────────────┐
              │  User provides  │
              │  qualification  │
              │  materials      │
              │     1.1.7       │
              └─────────────────┘
                        │
              ┌─────────────────┐
              │  Administrator  │
              │   checks the    │
              │  qualification  │
              │ materials 1.2.1 │
              └─────────────────┘
                        │
              ┌─────────────────┐
              │  Administrator  │
              │ submits comments│
              │on the qualific. │
              │ materials 1.2.2 │
              └─────────────────┘
                        │
              ┌─────────────────┐
              │  Administrator  │
              │ submits vetting │
              │ decision 1.2.3  │
              └─────────────────┘
                        │
                       ◄►──────── Deny ──────┐
                Approve/Deny                 │
                   Approve                    │
        ┌─────────────────┐      ┌─────────────────┐
        │System notifies  │      │System notifies  │
        │user registration│      │user registration│
        │approved  1.3.1  │      │denied    1.3.1  │
        └─────────────────┘      └─────────────────┘
                 │                        │
        ┌─────────────────┐               │
        │System creates   │               │
        │the account 1.4.1│               │
        └─────────────────┘               │
                 │                        │
        ┌─────────────────┐               │
        │System activates │               │
        │the account after│               │
        │first payment    │               │
        │made 1.4.3       │               │
        └─────────────────┘               │
                 │                        │
               ( End )◄───────────────────┘
```

Activity Diagram- Payment

Start

System notifies user to initial subscription
2.1.1

System determines payment amount
2.1.2

User accepts payment agreement?
Yes

User adds card information
2.1.4

System validates card information
2.1.5

No

Valid card information?
Yes

User provides billing address
2.1.6

No

System sends invoice to user
2.2.1

System sends transaction requestion to user's card issuer
2.2.2

Payment succeed/fail
succeed

fail

System notifies user payment succeeded
2.2.3

System notifies user payment failed
2.2.3

System sends user the payment confirmation
2.2.4

End

Data Model of Payment and Registration

Account Status

PK	Account Status ID	Varchar
	Account Status Code	Varchar
	Account Status Description	Varchar

Qualification Vetting Comment

PK	Comment ID	Varchar
	Comment Content	Varchar
FK	AccountID	Varchar
FK	Administrator ID	Varchar

Administrator

PK	Administrator ID
	First Name
	Last Name

Working Experience

PK	Working Experience ID	Varchar
	Company Name	Varchar
	Position Name	Varchar
	Responsibility	Varchar
	Start Date	Date
	End Date	Date
FK	AccountID	Varchar

Account

PK	AccountID	Varchar
	Username	Varchar
	First Name	Varchar
	Last Name	Varchar
	E-mail	Varchar
	Signup Date	Date
FK	Account Status	Varchar

Invoice

PK	InvoiceID	Varchar
	Amount	Decimal
	Date	Date
	Item Name	Varchar
FK	Billing Address ID	Varchar
FK	Account ID	int

Address

PK	Address ID	Varchar
	Street	Varchar
	City	Varchar
FK	State	Varchar
	Zip	Varchar

Education Experience

PK	Education Experience ID	Varchar
	Institution Name	Varchar
	Degree Name	Varchar
	Start Date	Date
	End Date	Date
FK	Account ID	Varchar

Transaction

PK	Transaction ID	Varchar
FK	Credit card ID	Varchar
FK	Invoice ID	Varchar

State

PK	State ID	Varchar
	State Code	Varchar

Credit Card

PK	Credit Card ID	Varchar
	Credit Card Number	Varchar
	Credit Card Name	Varchar
	Expiration Date	Date
FK	Account ID	Varchar
FK	Credit Card Type	Varchar

Card Type

PK	Card Type ID	Varchar
	Card Type Code	Varchar

Wireframes

Add User

Add User

<error>

Basic Information

Username:	siahowells93	*
First Name:	Sia	*
Last Name:	Howells	*
E-mail:	sh627268@gmail.com	*
Sign-up Date:	04/05/2020	* 🗓
Account Status:	Pending ⌄	*

Education Experience

Institution Name:	Kendall College
Degree Name:	A.A.S. in Baking and Pastry
Start Date:	09/01/2008 🗓
End Date:	05/30/2011 🗓

+

Working Experience

Company Name:	ABC Kitchen
Position Name:	Pastry chef
Start Date:	01/02/2012 🗓
End Date:	05/01/2017 🗓

+

Save   Cancel

Add Vetting comment

Add Vetting Decision

<error>

Account Information

Account ID:	A1072
First Name:	Sia
Last Name:	Howells
Account Status:	Pending

Education Experience

Institution Name:	Kendall College
Degree Name:	A.A.S. in Baking and Pastry
Start Date:	09/01/2008
End Date:	05/30/2011

Working Experience

Company Name:	ABC Kitchen
Position Name:	Pastry chef
Start Date:	01/02/2012
End Date:	05/01/2017

Comment and Decision

Comment: *

The Applicant has professional education background and working experience in high-end restaurant, which meet our membership selection standard.

Decision: Approve ▾ *

Save   Cancel

Add Credit Card

Add Credit Card

<error>

Account Information

Account ID: A1072   [Search]   🔍

First Name: Sia

Last Name: Howells

Credit Card Information

Card Number: 6287727282882837   *

Card Name: Chase Credit Card   *

Expire Date: 07/22   *🗓

Card Type: VISA   ▾   *

[Svae]   [Cancel]

Display Invoice

Display Invoice

Invoice ID:	CW28191
First Name:	Sia
Last Name:	Howells
Item Name:	2020 May Membership Fee
Billing Address:	652 Main Street, New York, NY, 10308
Total Amount:	12.99$
Date:	05/01/2020

[Exit]

Use Cases

Add User Use cases

Seq number	Action	System response
1	Administrator enters username	----
2	Administrator enters First Name	----
3	Administrator enters Last Name	----
4	Administrator enters E-mail	----
5	Administrator enters sign-up date	----
6	Administrator selects Account Status	----
7	Administrator enters Institution name	----
8	Administrator enters degree name	----
9	Administrator selects start date of education experience	----
10	Administrator selects end date of education experience	-----
11	Administrator enters company name	-----
12	Administrator enters position name	----
13	Administrator selects start date of working experience	----
14	Administrator selects end date of working experience	----
15	Administrator clicks save	System saves the record
16	End Use	
10.1	Administrator clicks Add Education Experience	System adds new blank sub-form for Education Experience
10.2	Action returns to Line 7	---
14.1	Administrator clicks Add Working Experience	System adds new blank sub-form for Working Experience
14.2	Action returns to Line 11	----
15.1		System notifies all mandatory fields must be entered
15.2	Administrator corrects missing fields	----
15.3	Action returns to line 15	----

Add vetting comment Use cases

Seq number	Action	System response
1	Administrator enters user account ID	----
2	Administrator clicks Search	System displays the account information of that searched account
3	Administrator enters comment	----
4	Administrator selects decision	----
5	Administrator clicks Save	System saves the record, the account status of the user will change to activated or denied
6	End Use	----
2.1		System notifies the input is not in a valid format
2.2	Administrator corrects the search	-----
2.3	Action returns to line 2	-----
5.1		System notifies all mandatory fields must be entered
5.2	Administrator corrects missing fields	----
5.3	Action returns to line 5	----

Add Credit Card Use cases

Seq number	Action	System response
1	Administrator enters user account ID	----
2	Administrator clicks Search	System displays the account information of that searched account
3	Administrator enters card number	----
4	Administrator enters card name	----
5	Administrator selects expiration date	----
6	Administrator selects card type	----
7	Administrator clicks Save	System saves the record
8	End Use	
2.1		System notifies the input is not in a valid format
2.2	Administrator corrects the search	-----
2.3	Action returns to line 2	-----
7.1		System notifies all mandatory fields must be entered
7.2	Administrator corrects missing fields	----
7.3		System notifies card number is invalid
7.4	Administrator corrects card number	----
7.5	Actions returns to line 7	----