Software Requirements Specification Document

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1. Functional Requirements

1.1 Header & Footer

1.1.1 Logo
- Displayed in the top left corner of the header
- Must be contained within the header background

1.1.2 Background
- Frames the logo and menu
- Positioned at the top of the site and forms the top left and right corners
- Constitutes the perimeter of the header as well as the maximum width of the site
- Static fixed display type which is independent from page scrolling
- Height: ~50px
- Color: Grey

1.1.3 Status
- Displayed in the top right corner of the header
- Displays user full name
- Displays 'Welcome' before the user's name
- Not displayed if the user is not logged in

1.1.4 Copyright
- Display a copyright label 'c 2014 piqls' in the bottom center of the layout

1.2 Menu

1.2.1 Home
- Redirects user to home page

1.2.2 Profile
- Checks the user's account type
- Redirects user to the user profile page for user accounts
- Redirects user to the retailer profile page for retail accounts

1.2.3 Register
- Draws a form for registering a keyed pair account (username, password)
- Records account information in a database

1.2.4 Log in
- Draws buttons for keyed pair login
- Draws buttons for OAuth login (aka. External login)
- Links to the 'Register' page

1.3 Homepage & Embedded Viewer

1.3.1 Image

- Display an image from a database
- Image is draggable
- When released inside the gutters the image returns to the center
- When released outside a gutter, the image is removed from that side of the screen
- When removed to the left, the "dislike" logic is triggered
- When removed to the left, the "like" logic is triggered
- "likes" and "dislikes" are recorded in a database and points are allotted to the user
- After being liked or disliked a new image is loaded and moved to the center

1.3.2 Arrows

- Display left and right arrows to either side of image

1.3.3 Stars

- Display 5 grey stars below the image
- Get the average rating from a database and color that many stars yellow
- Users can click a star and record their rating in a database
- After clicking a star, that many stars become colored regardless of the average

1.3.4 Comments

- Display a text area input below the stars and databind to a database
- Get existing comments about that image and display them consecutively below the input
- Chronological descending order
- When the image is dragged vertically, older comments can be viewed

1.4 User Profile

1.4.1 Points

- Display the user's accumulated point value in the top right corner under the header

1.4.2 Filter

- Filters are displayed in the top left corner under the header
- Display a date filter which specifies a comparison operator and one date
- Comparison operator includes: <, >, =, <=, >=
- Display a dropdown representing a category filter

1.4.3 Graph

- Display a vertical bar graph which spans the width of the page
- The graph displays data about the user's votes based on the selected filters
- Each bar has two layers and represents one retailer
- One layer is the user's votes while the other layer is the global average for that retailer
- The graph displays the top 5 retailers according to the filters
- Bars can be clicked to display the retailer's "Rewards List"

- Clicking a "Rewards List" icon will pop up a printable coupon
- Upon clicking a reward, that many points are deducted from the user
- Warn the user before clicking that they are about to spend points

1.5 Retailer Profile

1.5.1 Demographics
- Display filter inputs from the top left under the header
- Dropdown for demographic type (e.g. age)
- Comparison operator for the following input (<, >, =, <=, >=)
- Text box input for a value (e.g. 40)
- Display a date filter which specifies a comparison operator and one date
- Display a pie graph which spans the width of the page
- Each section represents one "Picture" and its ratings

1.5.2 Upload
- A text box input is displayed in the top left corner under the header for a name
- Next to that is a dropdown to specify "Picture" or "Reward"
- Next to that is an upload input which accepts image files only
- Max size: 4 mb
- Uploaded images are stored in a database
- Uploaded "Pictures" are added to the "Pictures List"
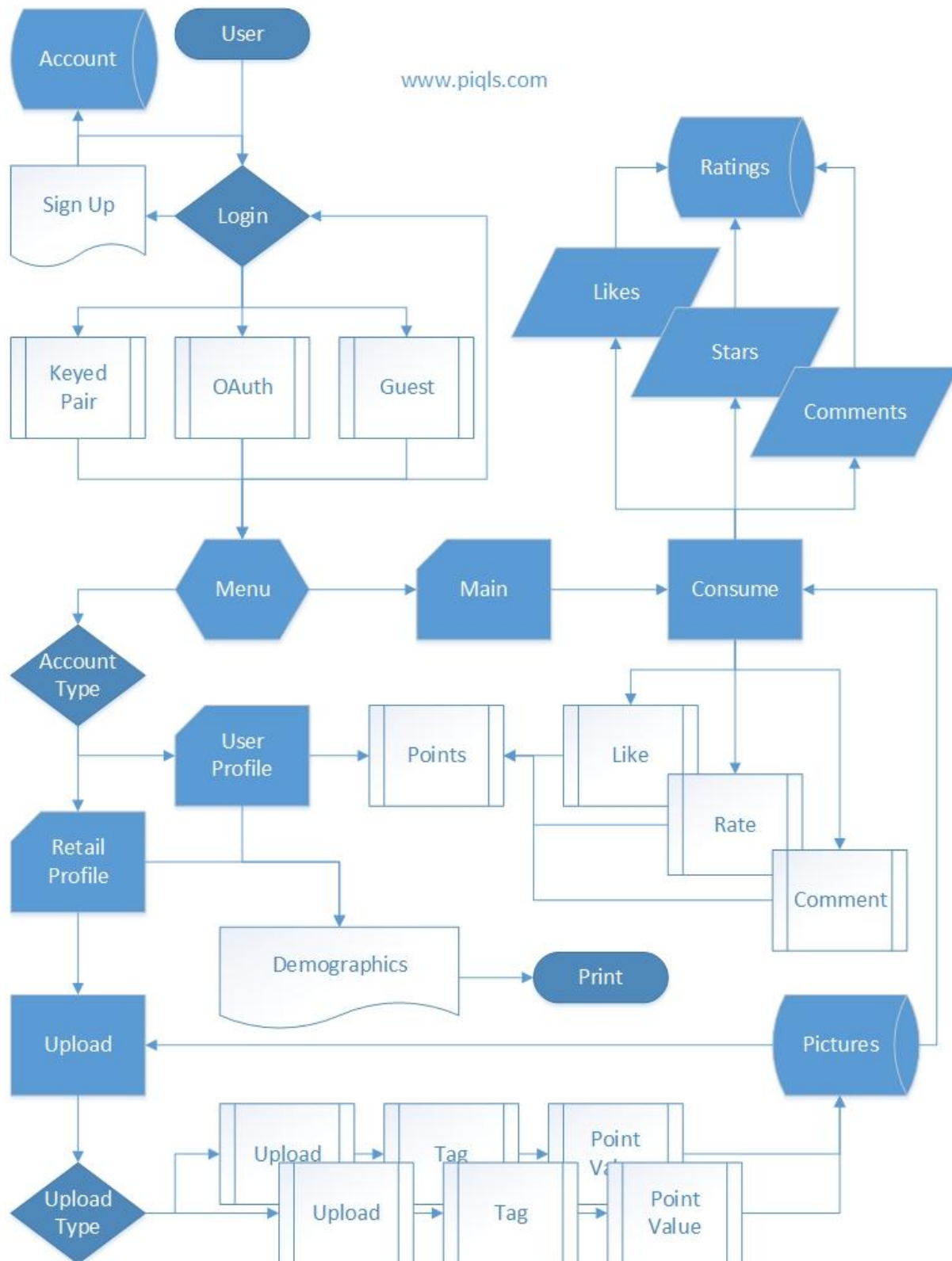- Uploaded "Rewards" are added to the "Rewards List"

1.5.3 Pictures List
- Display a button to collapse the picture list
- Display a list of retailer's images categorized as pictures
- Each list item displays the image on the left and metadata on the right
- Text Box metadata for changing and displaying the name
- Autocomplete metadata for tagging a category
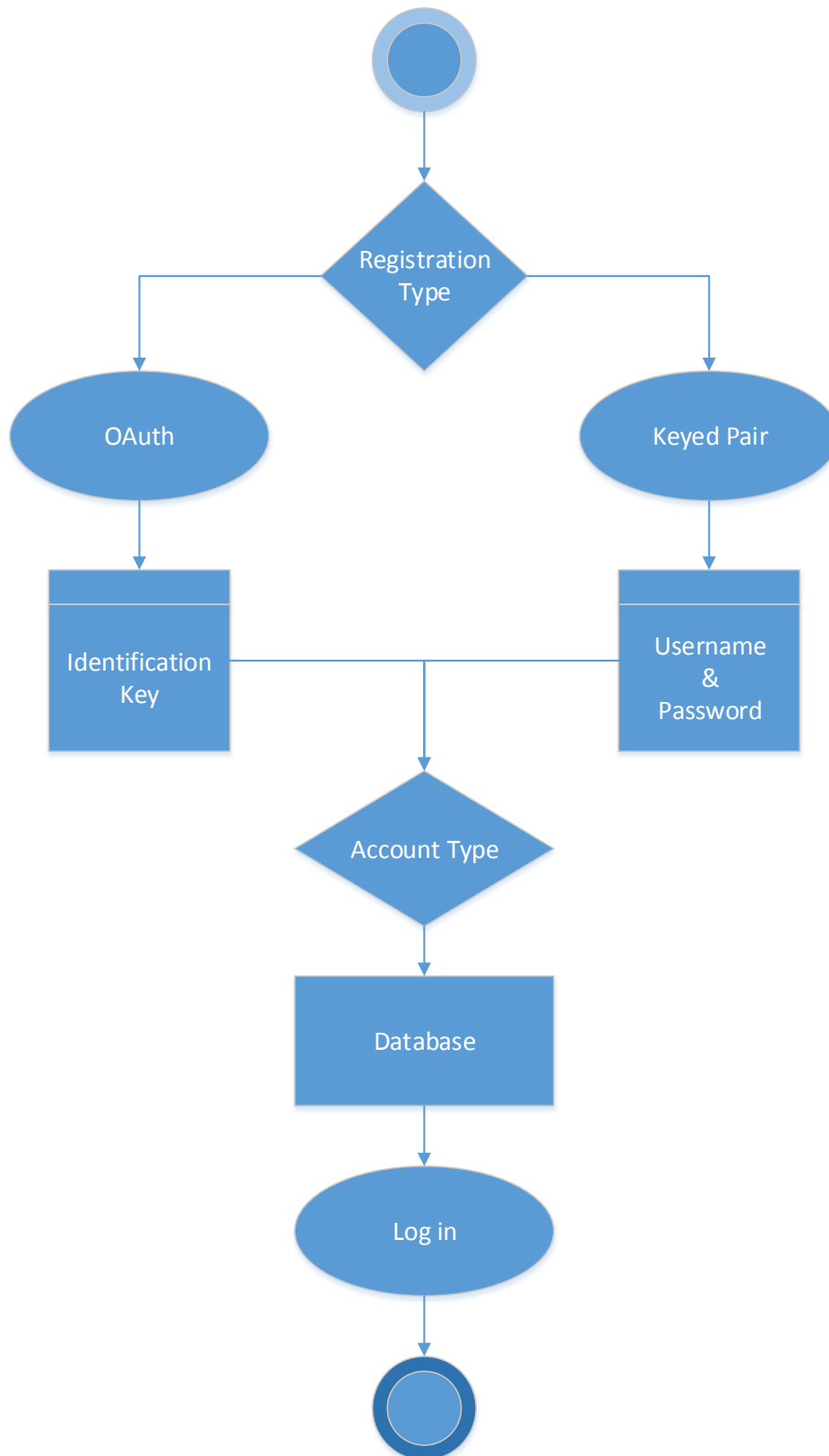- Spinner metadata for tagging a point value

1.5.4 Rewards List
- Display a button to collapse the rewards list
- Display a list of retailer's images categorized as rewards
- Each list item displays the image on the left and metadata on the right
- Text Box metadata for changing and displaying the name
- Dropdown metadata for selecting a reward type
- Spinner metadata for tagging a point value
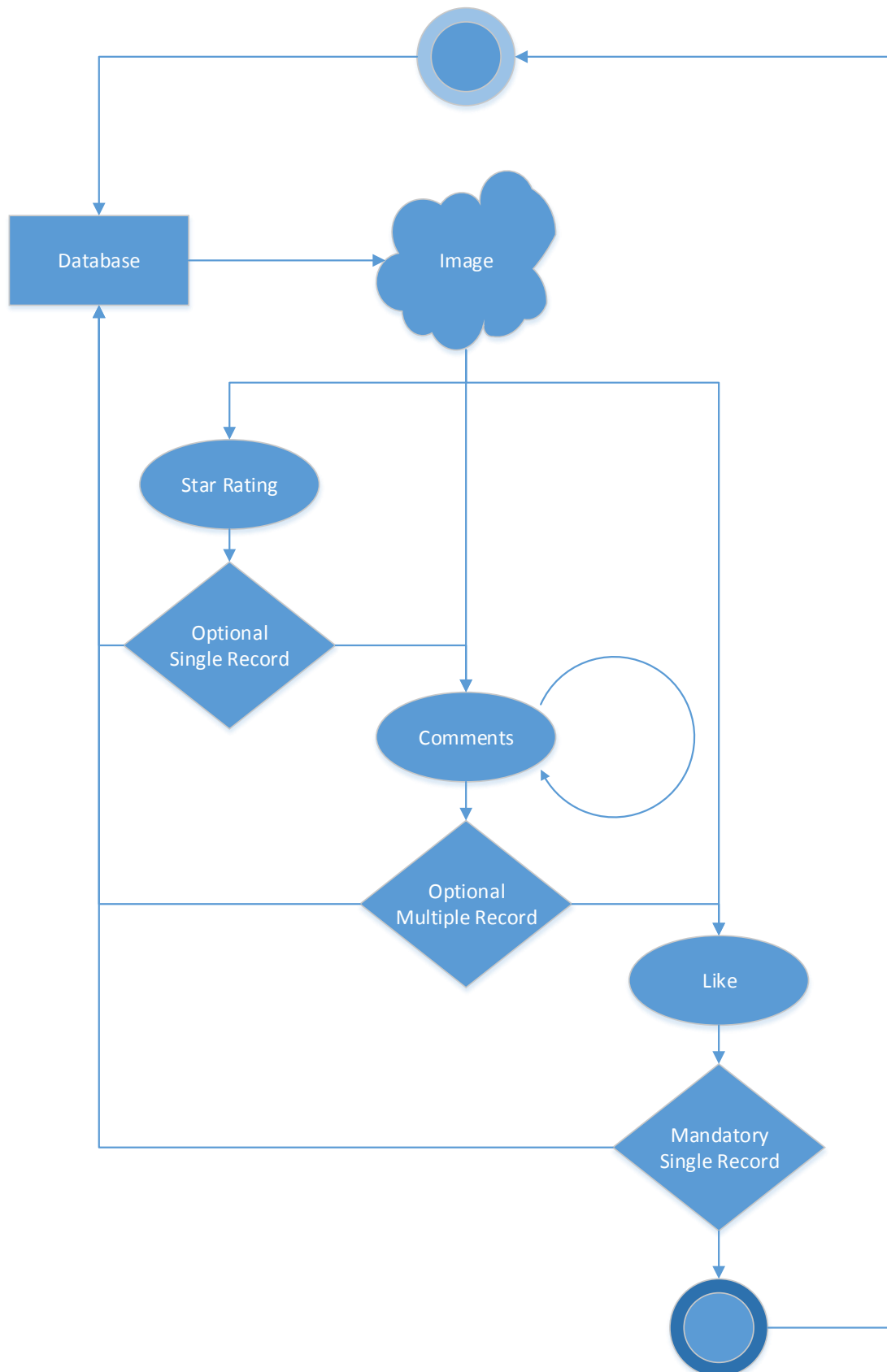
2. Complete Use Case Diagram
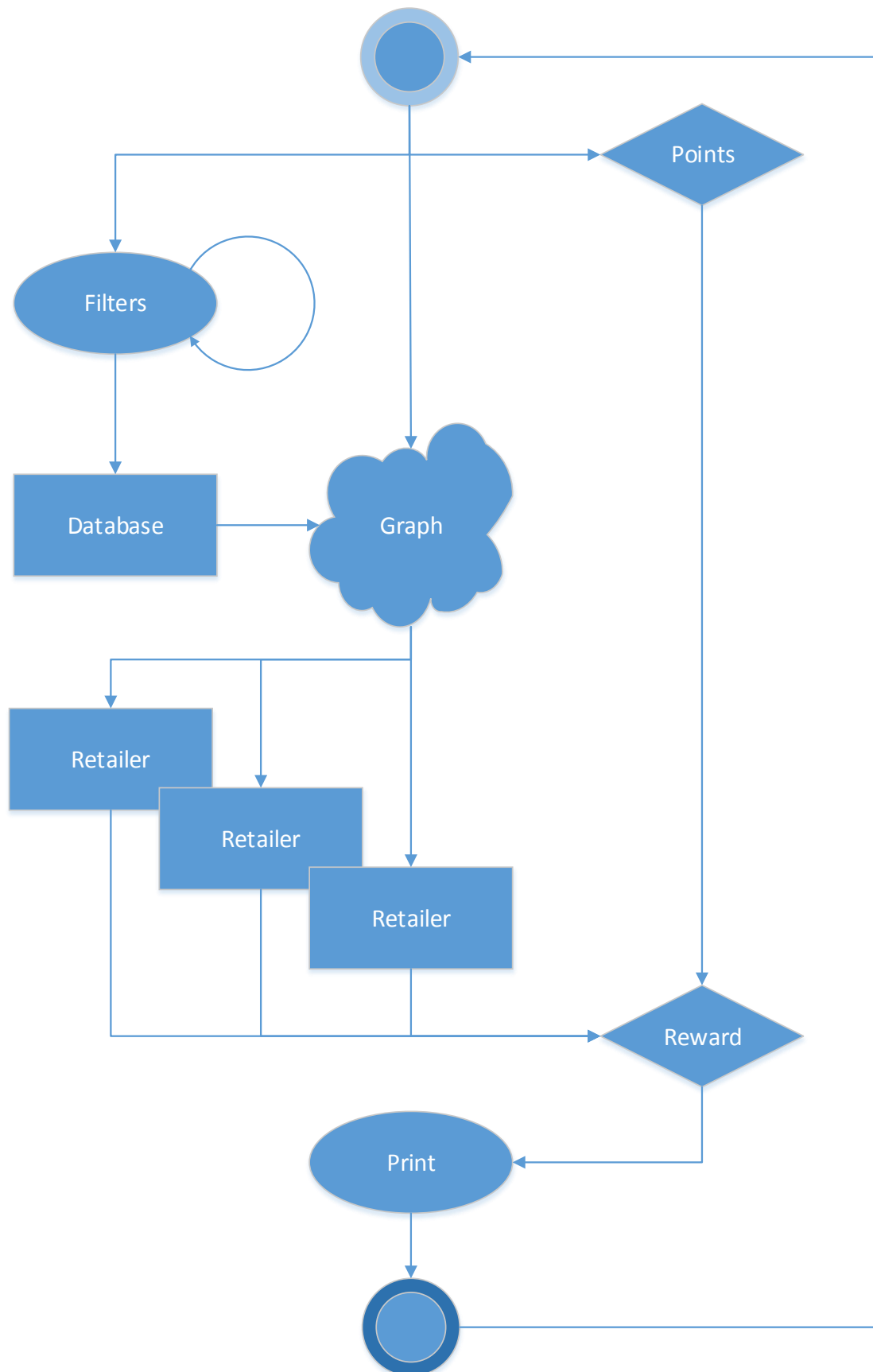
3. Detail Use Case Diagrams

3.1 Account Registration

```
                    ●

                    ↓

             ◇ Registration
                  Type ◇
            /              \
           ↓                ↓
      ( OAuth )        ( Keyed Pair )
           |                |
           ↓                ↓
    ┌──────────┐      ┌──────────┐
    │ Identifi-│──────│ Username │
    │ cation   │      │    &     │
    │ Key      │      │ Password │
    └──────────┘      └──────────┘
              \        /
               ↓
          ◇ Account Type ◇

               ↓
        ┌──────────────┐
        │   Database    │
        └──────────────┘

               ↓
           ( Log in )

               ↓
               ●
```
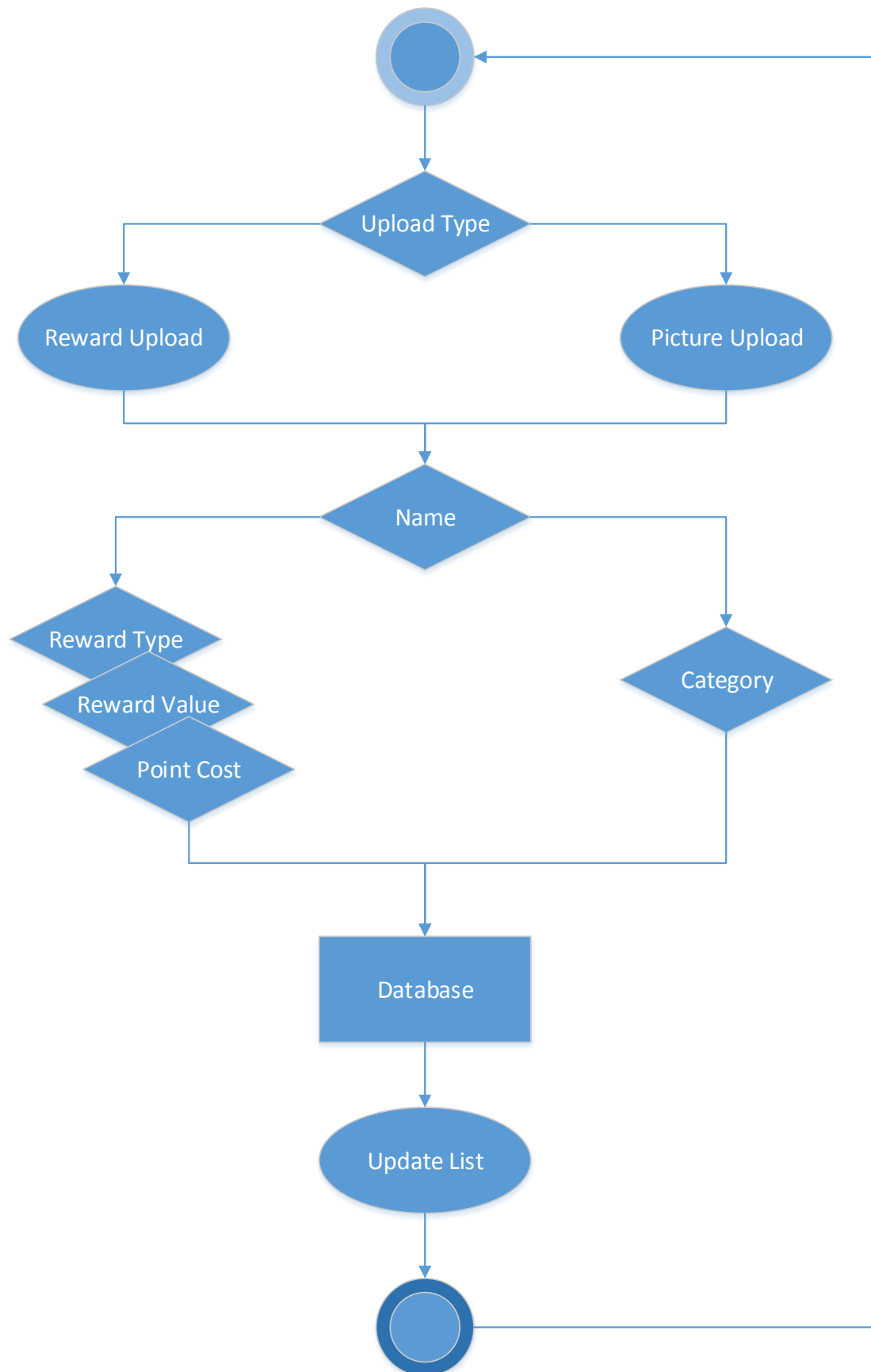
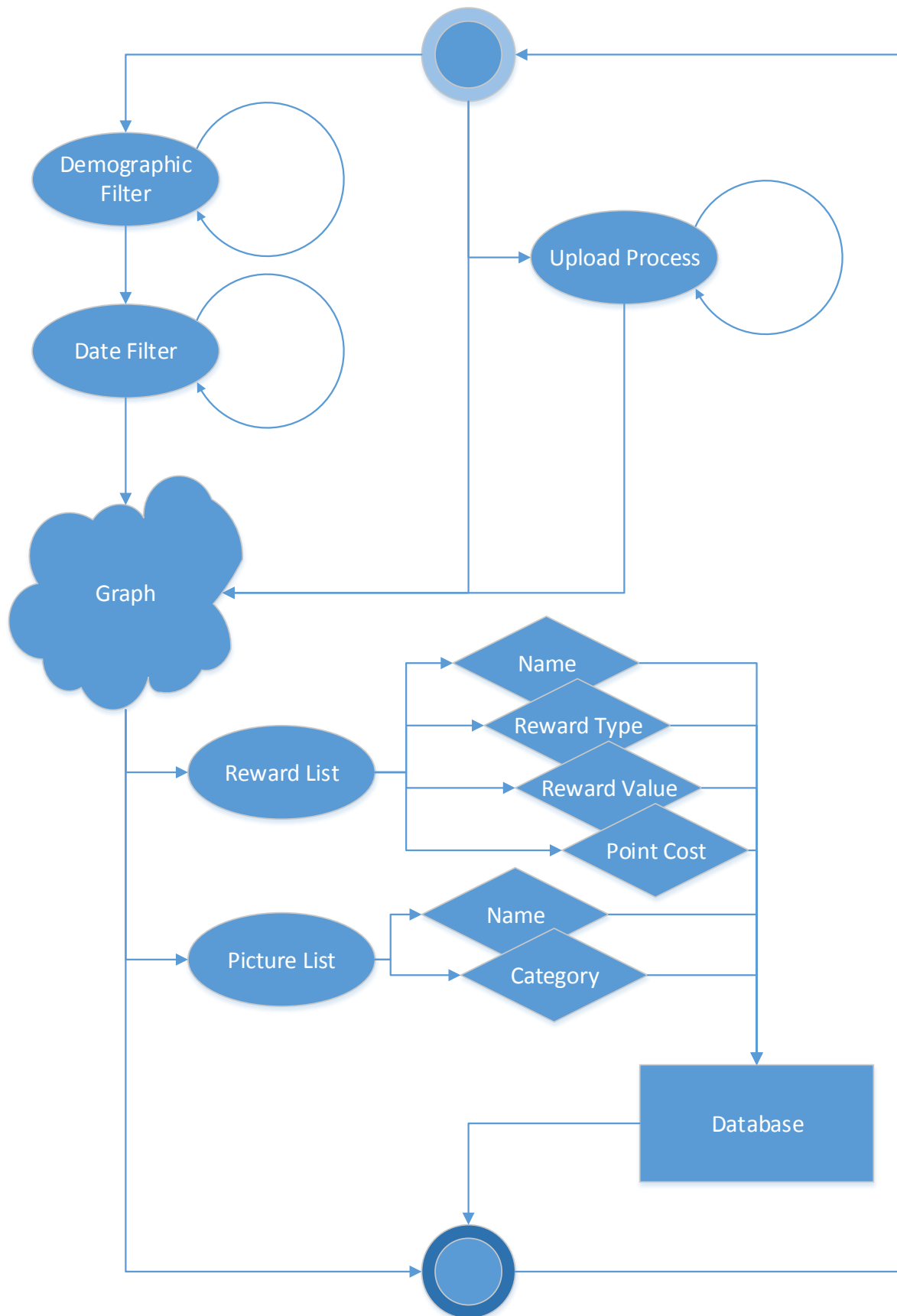## 3.2 User Main Process

3.3 User Profile Process

3.4 Retailer Picture & Reward Upload

3.5 Retailer Profile Process

4. System Constraints

SQL Server 2012
Database

Somee.com Web Host

www.piqls.com

Web Front End

C# 5.0
HTML5/CSS3
ASP.NET MVC5
jQuery/Javascript
.NET Framework 4.5

Embedded Graphics

Unity Game Engine
Unity Web Player
NGUI Plugin

Development

Visual Studio 2013 Professional
SQL Server Management Studio
Visio 2013 Professional
Monodevelop