Overview:

The project involved developing an Adobe Photoshop HTML based extension for a leading advertising and digital content management company. The client uses the extension to create varied styles of apparels on various Avatars/Models images. This project enabled them to avoid losing out on precious time and get instant high quality images.

Client details:

Name: Confidential | **Industry:** Retail & eCommerce | **Location:** Canada

Technologies:

Adobe CEP (Common Extensibility Platform), HTML5, JavaScript, CSS, jQuery, Vue.js, Node.js and Bootstrap
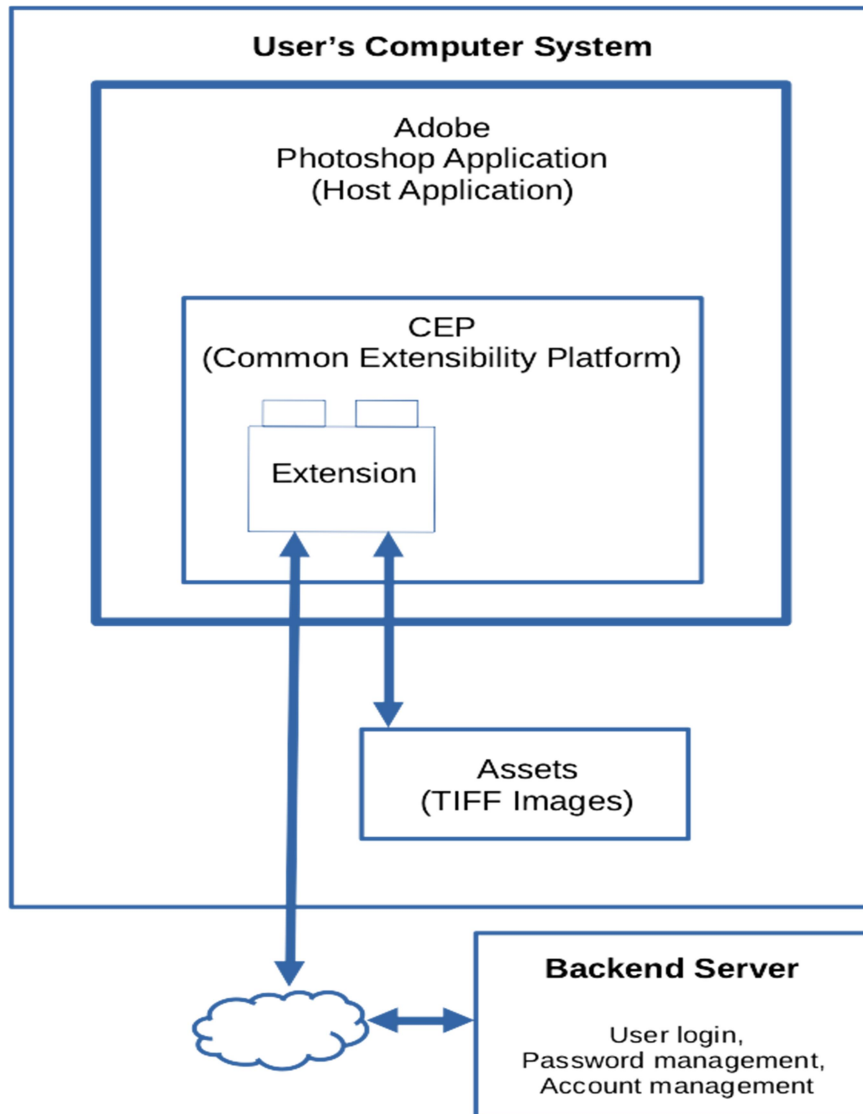
Project Description:

Generally the client used to spend a lot of time on real world human models dressed up for each of the apparels, photograph process and retouches. It was critical to have an intuitive, user-friendly UI/UX which would ease the process and reduce the repetitive tasks on a daily basis. The project started with a prototype to validate the idea and establish the usability. Once the prototype was successful, various functionalities were introduced in the Application. Some of the salient features are as follows:
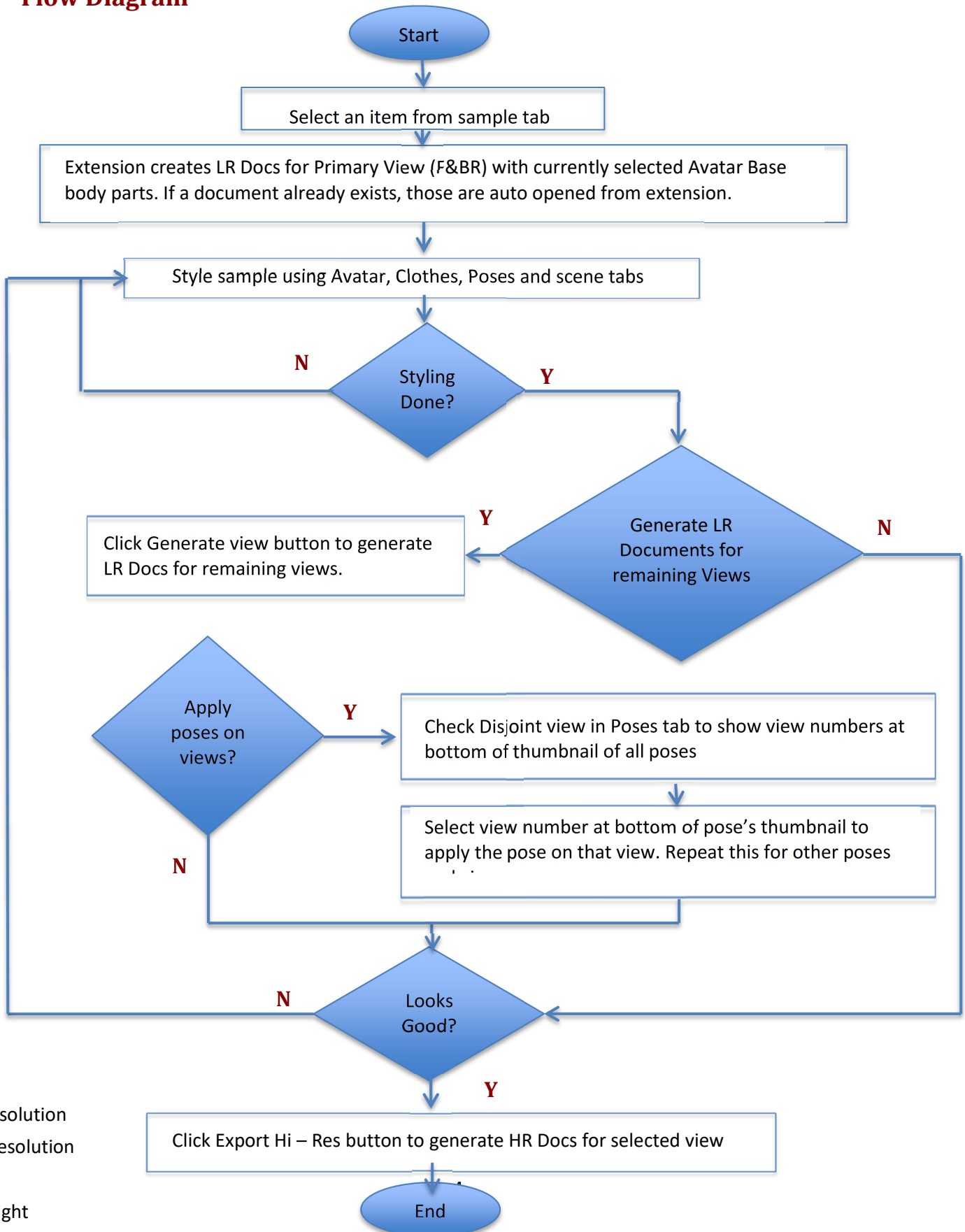
- A user selects a particular model out of the various options available (Male & Female) and places the clothing items over the models to create various styles for a primary clothing item. Primary clothing item is the one which can be styled by blending with other clothing items. The images for these clothing items are shared on a daily basis and can be styled using various models and integrated clothing items.

- The extension supports six viewing angles like Front, Front Left, Front Right, Back etc. where styling can be done. The user can select a particular style and the extension will generate several documents for the views as per the ones selected by the user.

- Each model has various alternate poses other than a default or a base pose. So a user can replace the pose of the model by selecting one out of many supported poses, while styling a clothing item. The extension also allows users to seamlessly switch the models while still in the middle of the styling phase.

- The extension applies shadow effects to make the high resolution output look more realistic and additionally helps to change the background scene behind the model wearing various clothing items.

- The team at Mindfire developed the extension which used a backend server system hosted on Google cloud service to provide functionalities for user account like user login, password management, and user account management.

- The extension uses TIFF image files for clothing items and models. The TIFF files come in two qualities: High Resolution and Low Resolution. The users use low resolution images throughout the styling phase to avoid performance bottlenecks. Once they finalize a particular style, the application generates high resolution images that act as an input to create Photoshop documents for production purposes.

- The TIFF files can be present locally or in a shared folder/synced folder using SharePoint/Google Drive etc. A headless CMS system was implemented which is used to manage the assets under planning and development as a separate but related project.

- The backend system provides features where the extension updates the status of various clothing items to be styled. This is performed by the server integrated with RESTful API and the extension invoked as per the requirement.
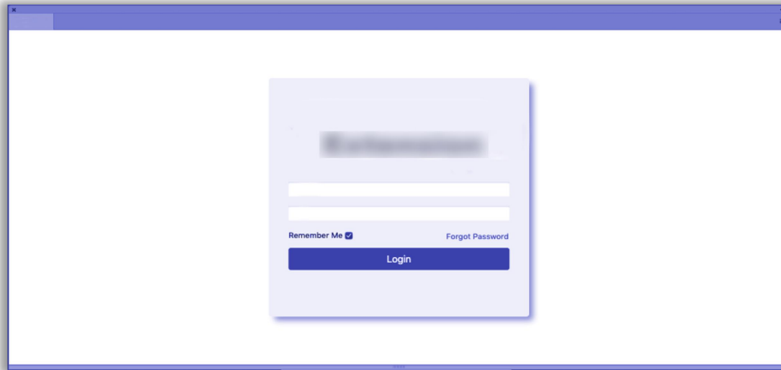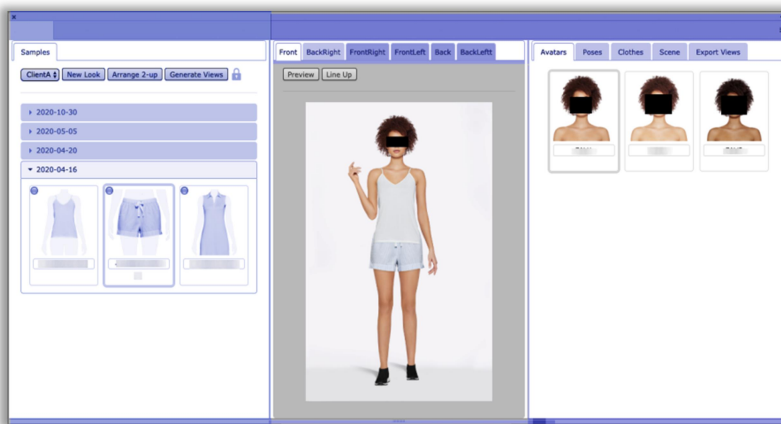
Architecture Design:

User's Computer System

Adobe
Photoshop Application
(Host Application)

CEP
(Common Extensibility Platform)

Extension

Assets
(TIFF Images)

Backend Server

User login,
Password management,
Account management

Fashion Imagery Solution

mindfire

Flow Diagram

Start

Select an item from sample tab

Extension creates LR Docs for Primary View (F&BR) with currently selected Avatar Base body parts. If a document already exists, those are auto opened from extension.

Style sample using Avatar, Clothes, Poses and scene tabs

Styling Done?
N / Y

Generate LR Documents for remaining Views
Y / N

Click Generate view button to generate LR Docs for remaining views.

Apply poses on views?
Y / N

Check Disjoint view in Poses tab to show view numbers at bottom of thumbnail of all poses

Select view number at bottom of pose's thumbnail to apply the pose on that view. Repeat this for other poses

Looks Good?
N / Y

Click Export Hi – Res button to generate HR Docs for selected view

End

Legend:

LR: Low Resolution

HR: High Resolution
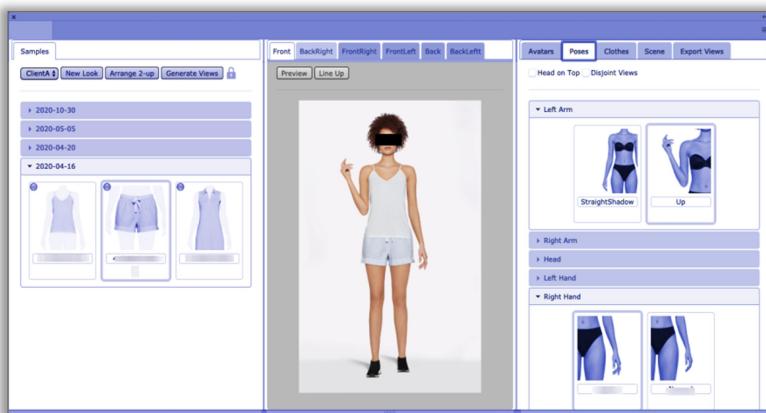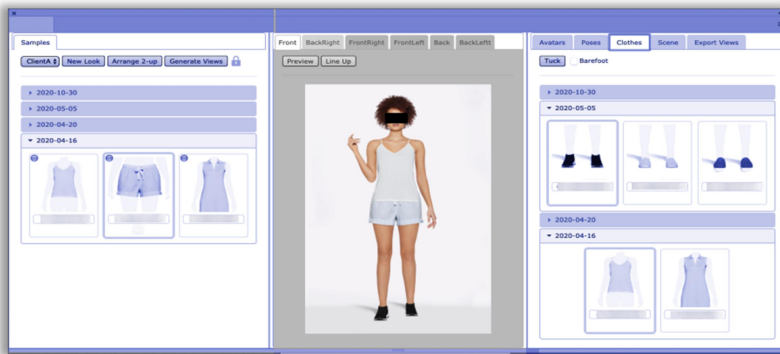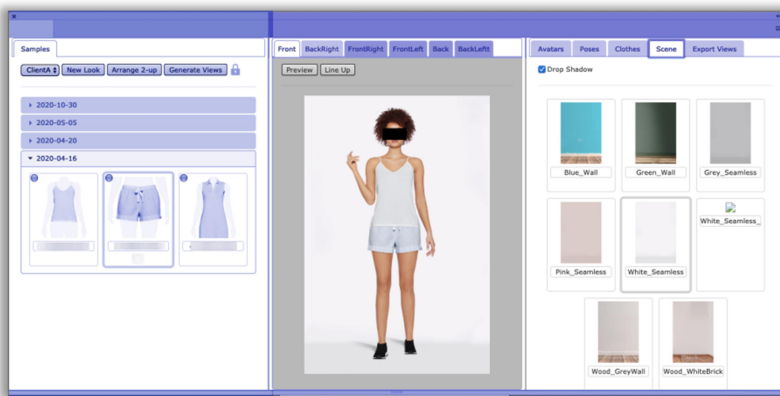
F: Front

BR: Back Right

Screenshots

Screenshot 1: Login
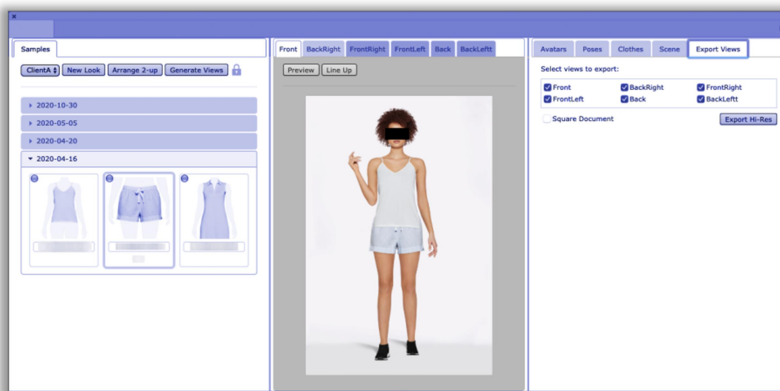

Screenshot 2: Workspace View
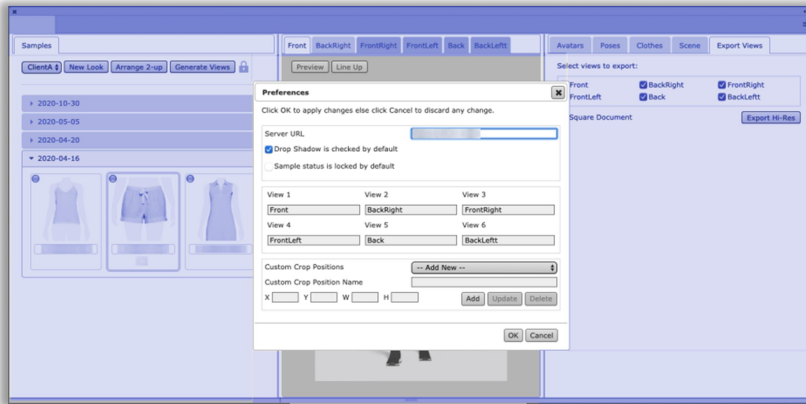

Screenshot 3: Pose View

Screenshot 4: Clothes View

Screenshot 5: Scene View

Screenshot 6: Export View

Screenshot 7: Preferences

Screenshot 8: User Account