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Fashion Accessories using virtual mirror

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Introduction

- Fashion is a well known style or practice, especially in clothing, accessories. Fashion is a unique and frequently habitual trend in the style in which a person dresses.
- Shopping is a time-consuming activity for a few social people, while for others a much enjoyed one Virtual Fitting Room attracted a complete lot of interest of men and women in last few years.
- It is similar to Trial Room but there is placed Virtual Mirror instead of real Mirror. Virtual Mirror is a computerized mirror that works like a real mirror in which a user is allowed to see him/her for different applications.
- The application “Fashion Accessories Using Virtual Mirror” is a shopping model which we will be implementing as our project.

Motivation

- Users commonly try on many items and spend lots of time for them to purchase jewels. In Stores, many mirrors are located to help users for making their decision to buy accessories looking well. Sometimes, it is very inconvenient for them to try accessories carefully each time and put on whenever they find attracting of them and also for sales person who has responsibility to take care of these accessories.

- Due to security reasons, there is also a restriction on the number of accessories that can be taken at time for trial. Virtual Fitting Room yield out the solution to this problem.

Literature review

A VFR implementation by **JCPteen**[1] gets an image of the user and use adobe flash player to display the clothing items on user. At First, it shows a shadow on the screen where user has to fit them and after that the cloth is appeared. In this system if the user is moving, the item will not track him, only shows how it looks as a fixed template.

Zugara [2]offers VFR is like to the JCPteens since the items don't track once they are shown. It is based on the augmented reality principle. The VFR doesn't consider the extent of the user, only shows how it appears to be as a fixed template. Similarly, **Swivel** [3] is labeled as a trial system that user can see how clothes and accessories look on them in real-time.

The **Ray-Ban** [4]is a web page; there is a Virtual Mirror where a user can see how the glasses fit on him/her. If the user turns his/her head, the model fits the glasses on user's face. User only require to download a plug in and install and integrate with own system. The program works based on augmented reality principle: At First, the user has to match the face area within a position the eyes in a line and a shape that it is shown on screen so it can take a reference of the head. After that it displays the glasses that have been chosen.

Analysis of review

- we mainly focus on designing the real time virtual dressing room. virtual dressing room is used in shops, malls & any shopping centre. Trying clothes in shopping centre is actually a time consuming activity. Besides, it might not even be possible to try on clothes in such cases as online shopping.
- Our motivation is to increase time efficiency and improve the accessibility of clothes try on by creating virtual dressing room environment. And also build an interactive and highly realistic virtual machine on which the user can try clothes without wearing it actually.
- This is the major reason why less number of apparels is being shopped online. Hence, a virtual dressing room which would make people knows how cloths personally fit in would be a great luxury for the online sellers which could give a wide choice for customers.

Objectives

The proposed system gives different objectives as follows:

- It helps to choose accessories in virtual display screen and can be tried virtually rather than physically and Sales person does not need to show every accessories by hand.
- So lots of time is saved by user as well as vendor while shopping in the real-store.
- It stops robbery and damage of accessories.
- It can be easily operated and Low Cost and It gives better satisfaction and experience to buyers and sales person.

Scope

- Automatic body measurements and body shape identification.
- Fast and easy virtual accessories try-on.
- It gives better satisfaction and experience to buyers and sales person
- Automatic accessories alignment and scaling.

Problem Statement

- Trying different clothes in shops and finally selecting the right one is a time consuming and tedious task.

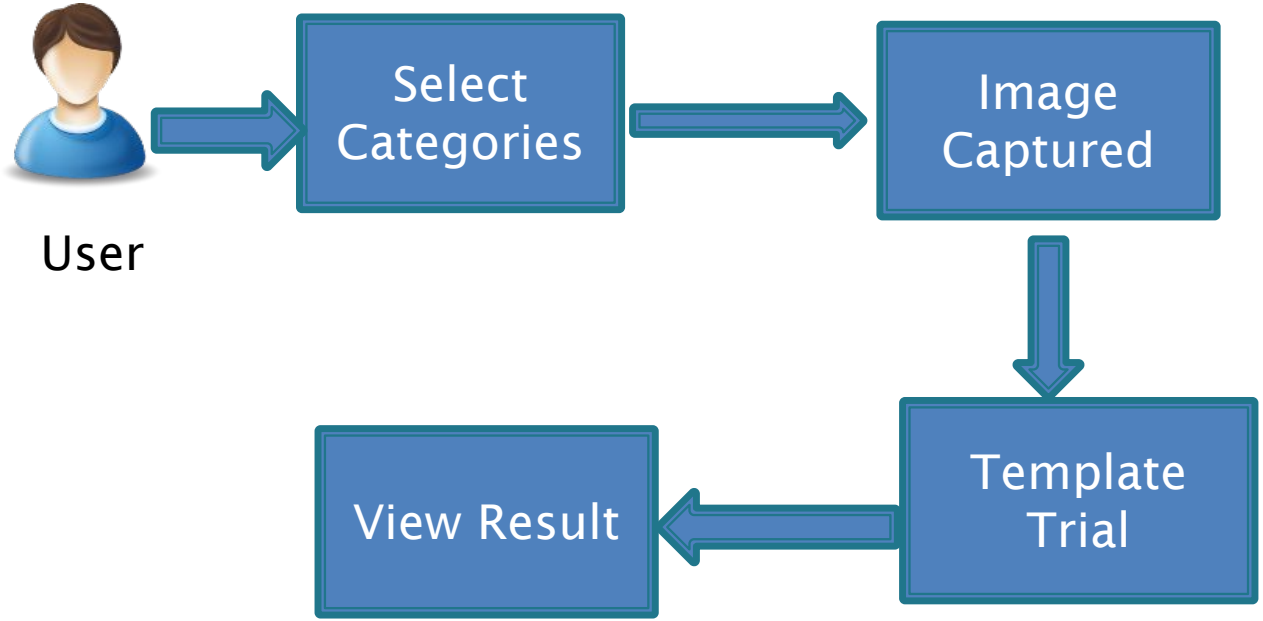
- In shopping malls due to crowd, there is also a restriction on the number of garments that can be taken at one instance of time for trial.

Proposed System

The proposed system gives different objectives as follows:

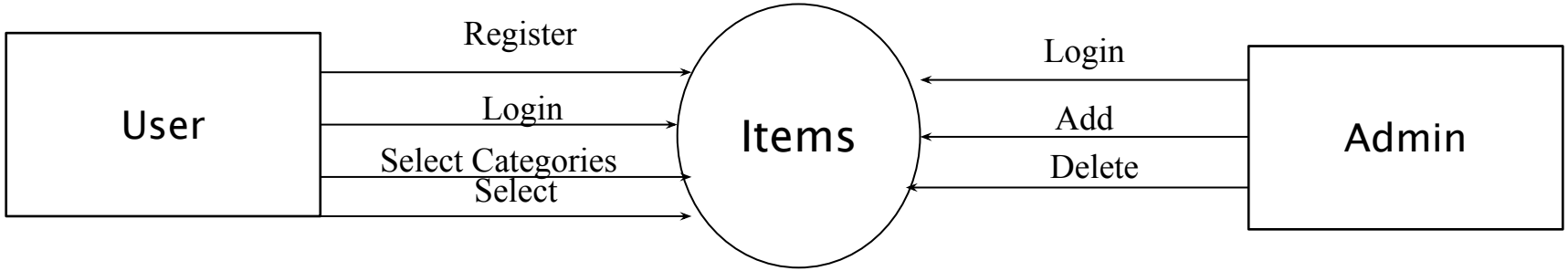
- It helps to choose clothes in virtual display screen and can be tried virtually rather than physically and sales person does not need to show every clothes by hand.
- So lots of time is saved by user as well as vendor while shopping in the real-store.

System Architecture

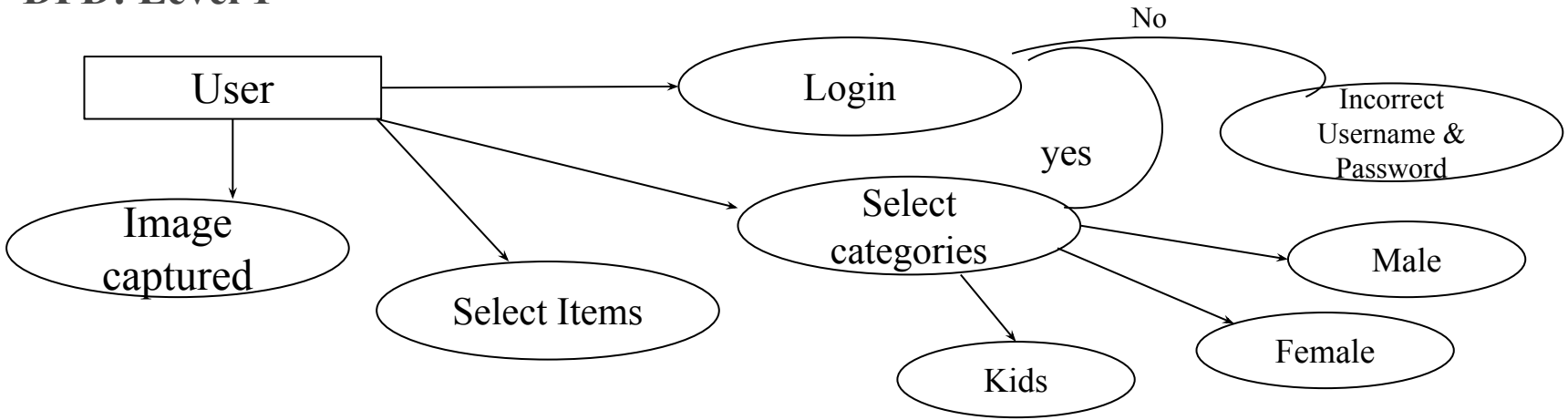


DataFlow Diagrams

DFD: Level 0

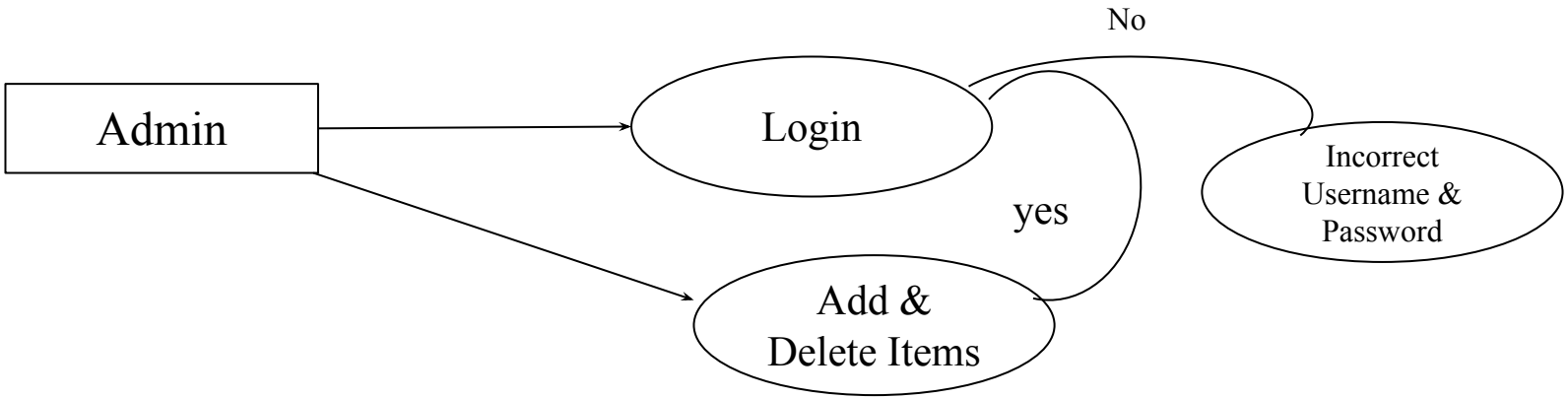


DFD: Level 1

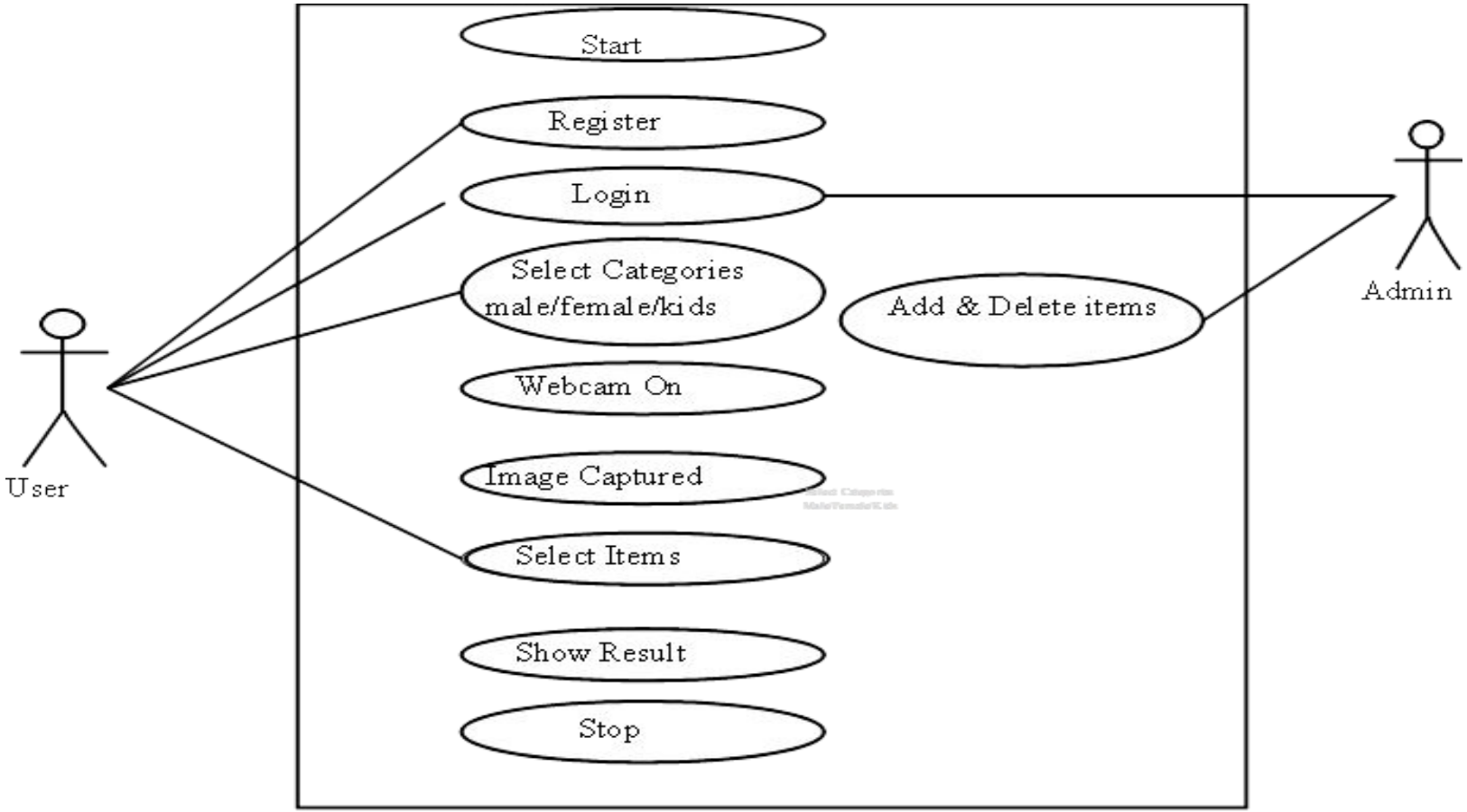


DataFlow Diagrams

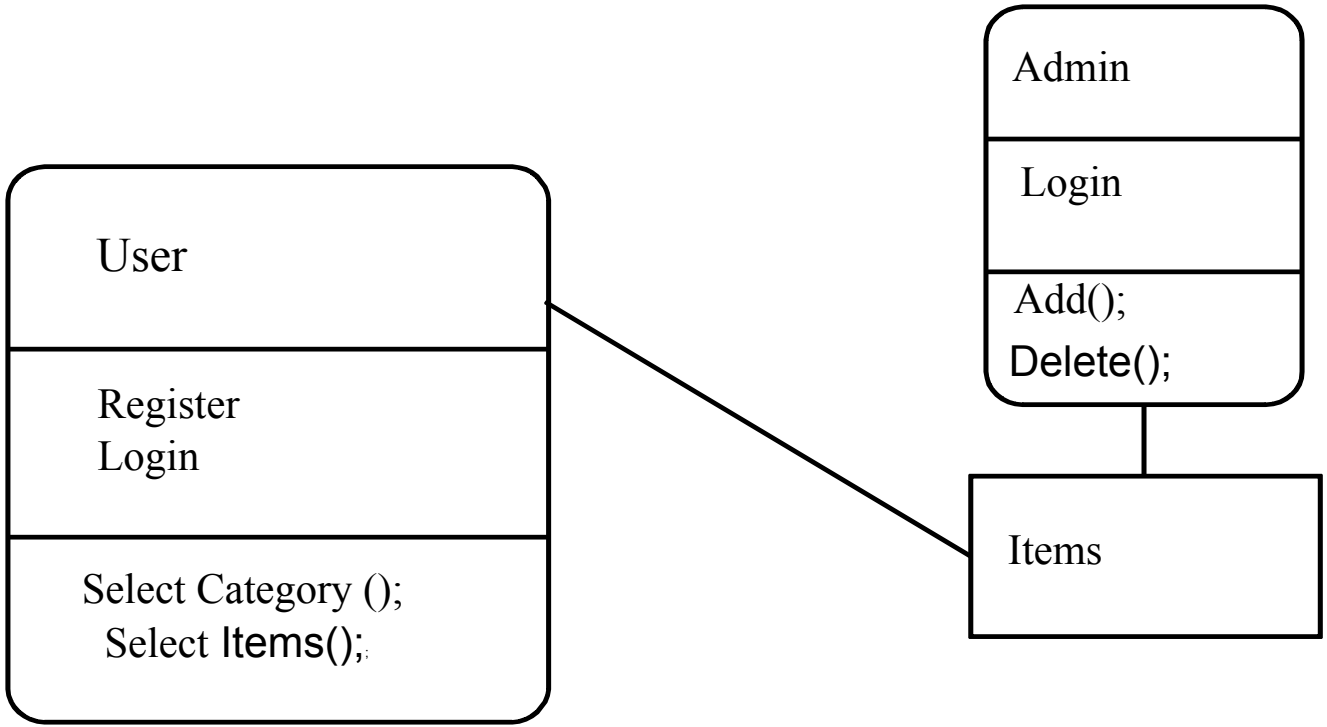
DFD: Level 2



Use Case Diagram:



Class Diagram:



Observations / Conclusion

- We can say that for implementing the real time virtual dressing room different technologies, frameworks and algorithms are used.
- We concluded that this is very time saving activity. It does not require more efforts. This virtual machine is used by any non-technical person. It does not require much technical knowledge. So, it is user friendly. So it is an optimal addition for cloth store.
- Overall, the presented virtual dressing room seems to be good solution for quick and accurate try on of clothes virtually is time saving and will used in market increasingly.

References

[1] C. G. Martin and E. Oruklu, "Human Friendly Interface Design for Virtual Fitting Room Applications on Android Based Mobile Devices," Journal of Signal and Information Processing, p. 10, 2012.

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Thank You