OBJECT-ORIENTED ANALYSIS AND DESIGN

UNIFIED
MODELING
LANGUAGE™

Homework #1

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1 How is analysis different than design and vice-versa?

Analysis emphasizes an investigation of the problem and requirements, rather than a solution. Design emphasizes a conceptual solution that fulfills the requirements, rather than its implementation.

Also, we can say that analysis is **do the right thing**, and design is **do the thing right**.

For example. When we face a problem, the behavior that thinking how to solve the question is analysis. Later on, we will design a solution when realizing what the question is.

Therefore, design comes after analysis.

2 Imagine you are designing a Netflix-type movie rental service.

2.1 Write a list (at least 6) of features from a customer perspective.

(1) sign up

(2) sign in

(3) browse the recommendation movie (recently added/ trending now/ watch it again, etc)

(4) search by title/ actor/ genre

(5) get more details about the interested movie before watch it

(6) watch the movie

(7) control the toolbox when playing the movie (play control/ sound control/ screen control/ subtitle setting, etc)

(8) save to Watch List for watching it next time

2.2 Write a list (at least 3) of features from an employee perspective.

(1) upload new movies

(2) get users' feedback from users' report

(3) get users' behavior data from users' click record

2.3 Write a list (at least 3) of features from a IT/server backend perspective.

(1) get the amount of online users

(2) store users' information (personal information/ behavior information)

(3) provide APIs to let front-end platform access the database

2.4 Prioritize the items in the lists you wrote above from most important to "extras". By "most important" what do you mean? (For example: if you wrote 15 features from 2.1-3 above, then rank the 15 in order of importance)

(1) provide APIs to let front-end platform access the database

(2) store users' information (personal information/ behavior information)

(3) get the amount of online users

(4) upload new movies

(5) watch the movie

(6) control the toolbox when playing movie (play control/ sound control/ screen control, etc)

(7) sign up

(8) sign in

(9) search by title/ actor/ genre

(10) get more details about the interested movie before watch it

(11) browse the recommendation movie (recently added/ trending now/
watch it again, etc)

(12) get users' behavior data from users' click record

(13) get users' feedback from users' report

(14) save to Watch List for watching it next time

2.5 Using 2.4 above, why did you choose to rank it that way?

If a company want to run a service like Netflix, the back-end foundation such as APIs, provide ability for all online user, store information is necessary. Some basic features are also necessary, such as new movie upload for employee, play toolbox for customer.

To charge from each customer, we need to have sign in function.

Searching, getting details, and getting recommendation of movie are also important but not necessary.

To provide the more precisely recommendation to customer and improve the service, we need to collect the data from user behavior and user feedback.

Save to Watch List for watching it next time is not a necessary function, but it can improve the user experience.

2.6 In the lists of features, if you were implementing the feature, add an estimated time of completion.

According to the priority, I will take at least a month to build up back-end. Due to the fact that back-end is the most important part for a service. Meanwhile, designers is able to create some user interface. After that, front-end could start to code for at least two weeks. And it depends on the amount of bug and user to decide add the extra function or not.

2.7 Say you had 6 weeks to finish, what is feasible?

Due to back-end is the most important part for this service, I will spend most of the time to build up back-end. My 6 week schedule is as below:

1st week:	Design user interface and build up server, database and API
2nd week:	Build up member system
3rd to 5th week:	Build up movie database and functions
6th week:	Test and debug

3 In 2.1 above, write some use cases. Write some that are informal summaries. Choose one and write that as formal.

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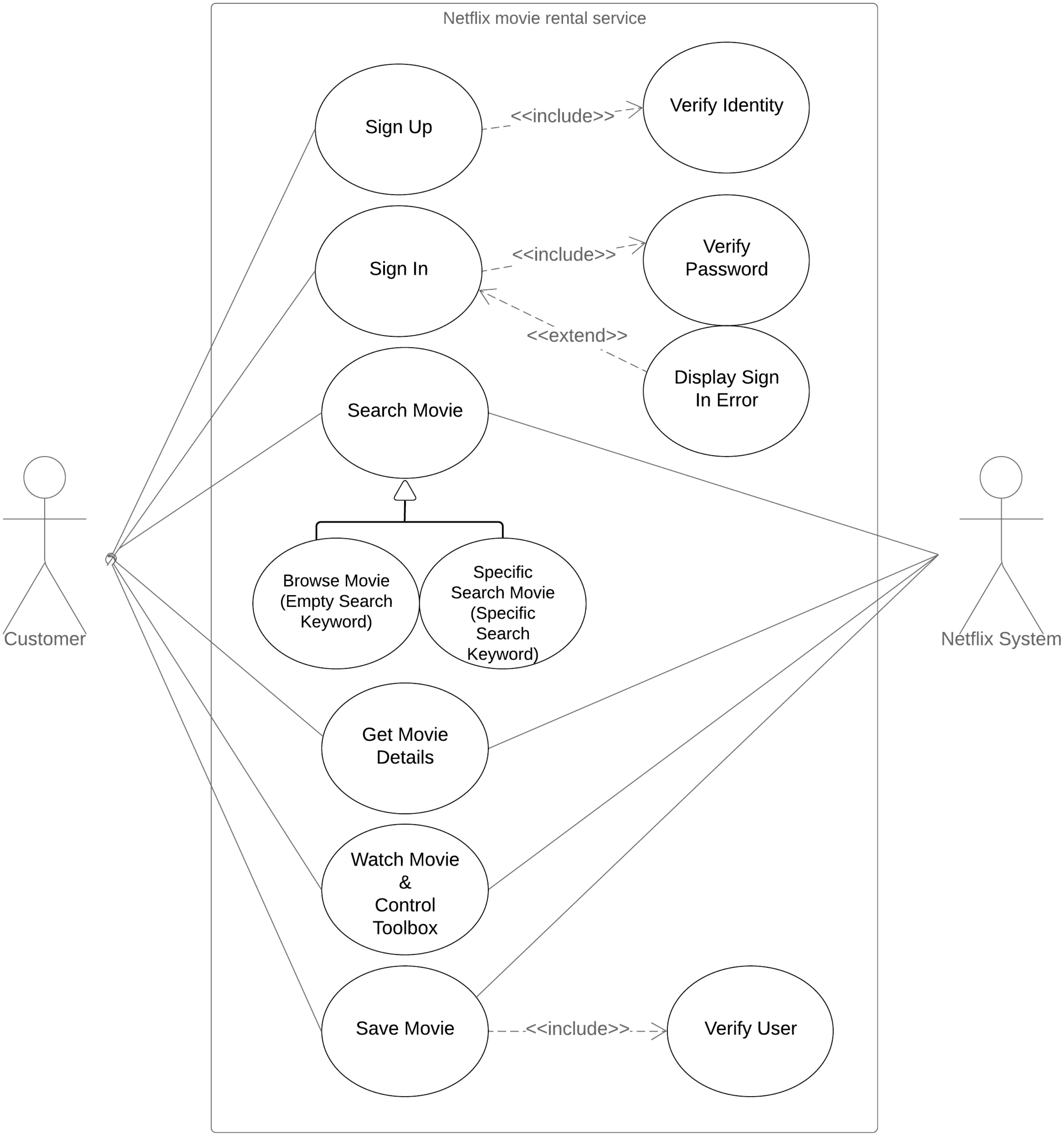
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