

Individual Homework #4 –Task Analysis

Title: Bill Management System [BMS]

Problem:

It is noticed that an average individual has many online accounts. These accounts may be personal, utility related, professional etc. The main problem here is to remember all the login details for accessing these accounts. The problem is more extensive when these accounts are utility related like paying your monthly bills. Because failure in this aspect, could lead to disconnection of the services. The issue becomes even more grave when we are dealing with older adults demography. We might even consider a situation where they are incapable of paying their bills as a reason of them being incapacitated. These would adversely effect their bill management.

Users and Stakeholders:

1. Older adults
2. Youth adults (relatives of older adults)
3. Service providers
4. Designers
5. Developers
6. Programmer
7. Other application platform users
8. Software provider

Tasks

0. Pay Bills
 1. Login/Register
 - 1.1 Enter login name
 - 1.2 Enter Password
 - 1.3 Enter Password again when registering
 2. Add Account
 - 2.1 Add the account name
 - 2.2 Add all the information in the form
 - 2.3 Save the information
 - 2.4 Clear the information
 3. Select Account
 4. Give permission to pay

Tasks and Problem Scenario

1. Logging In
 - a. Goal

The application users must first login to the application. This is to load all the information pertaining to that user. Once the users login, they can use the services provided by the application. Another aspect of this is to authenticate the user so that there is no malicious activity.
 - b. Preconditions
 - i. The user must know his login signature.
 - ii. User must know how to access the application.
 - iii. User must be aware of the general metaphor of logging in to an application.
 - iv. User must know how to use the input tools to input the information required by the application.
 - c. Subtasks
 - i. There must be a way of registering new users in this task, for first time users.

- ii. A way to make users login, if they have forgotten the login signature.
 - iii. Authentication methodology must be implemented here.
 - iv. There should be some hint to the users, so that they are aware of the consequence of logging in.
 - d. Exceptions
 - i. The user might register again instead of logging in.
 - ii. The users might forget their login signature.
 - iii. The login signature must be validated (like case sensitivity)
 - iv. The users might get lost, if they are not aware of the forward event.
 - e. Description

Essentially the users use this to log in to the application. This could act as the primary way to access the service. The frequency of using this task is directly related to the frequency of using the application itself. The major constraint here is to properly, yet easily authenticating the user.

2. Adding Accounts

- a. Goal

Let users to add accounts that they wish to maintain as a part of this service. The idea is to add the account successfully, so that later they can use this data related to this account seamlessly when paying their bills.
- b. Preconditions
 - i. The user must know all of their account details.
 - ii. This includes them going through all of their information pertaining to that account again for the data entry.
 - iii. Failure to do so might show problems when using the service.
- c. Subtasks
 - i. Storing the information in a database in an orderly manner.
 - ii. Asking the appropriate questions related to that account.
- d. Exceptions

- i. The user might enter wrong information.
 - ii. The user might try to create an account, which in reality might not exist.
 - iii. Handling all these data might be tricky.
- e. Description

The idea is to have a form for the user to add a particular account. This would make them fill the relevant data that is used later for the purpose of paying their bills. The major constraint is to figure out the right form for an account. The frequency initially will be high to set up all their accounts but then on would reduce as once set-up the account information usually does not change.

3. Selecting accounts for bill payment

- a. Goal

The goal is to select appropriate account for the purpose of paying bills of that account.
- b. Precondition
 - i. The user must have already entered all the details for that account.
 - ii. The user must be aware that by selecting they are going to be able to pay their bills.
- c. Subtasks
 - i. Authenticating their already entered details for that account.
 - ii. Taking all the data from the database for the main purpose.
 - iii. Getting appropriate feedback, in case of every event for this moment forward.
- d. Exception
 - i. The user might have entered incorrect data to begin with.
 - ii. The user might select the wrong account by mistake.

iii. There might be an issue when comes to transferring data from the database to the application in question.

e. Description

The main task is to select the appropriate account for the purpose of paying the bills. The user must select the available account and then follow the instructions (if any) to successfully pay their bills. This frequency here can be high as this is main service of the application, so it has to be readily available.