Digital Pink Card

Use Case Diagram

Submitted to:

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Unique Reference:

The documents are stored in the Github Repository: https://github.com/cadaroya/forgee .

Unique File Reference: https://github.com/cadaroya/forgee/blob/master/02-Requirements%20Engineering/Digital%20Pink%20Card%20-%20Use%20Case%20Model.pdf

Document Purpose:

The purpose of this document is to establish the interactions between the entities of the Digital Pink Card by defining the use-case diagram.

Target Audience:

Students of UP Diliman, specifically College of Engineering students using the TLC facilities.

Revision Control

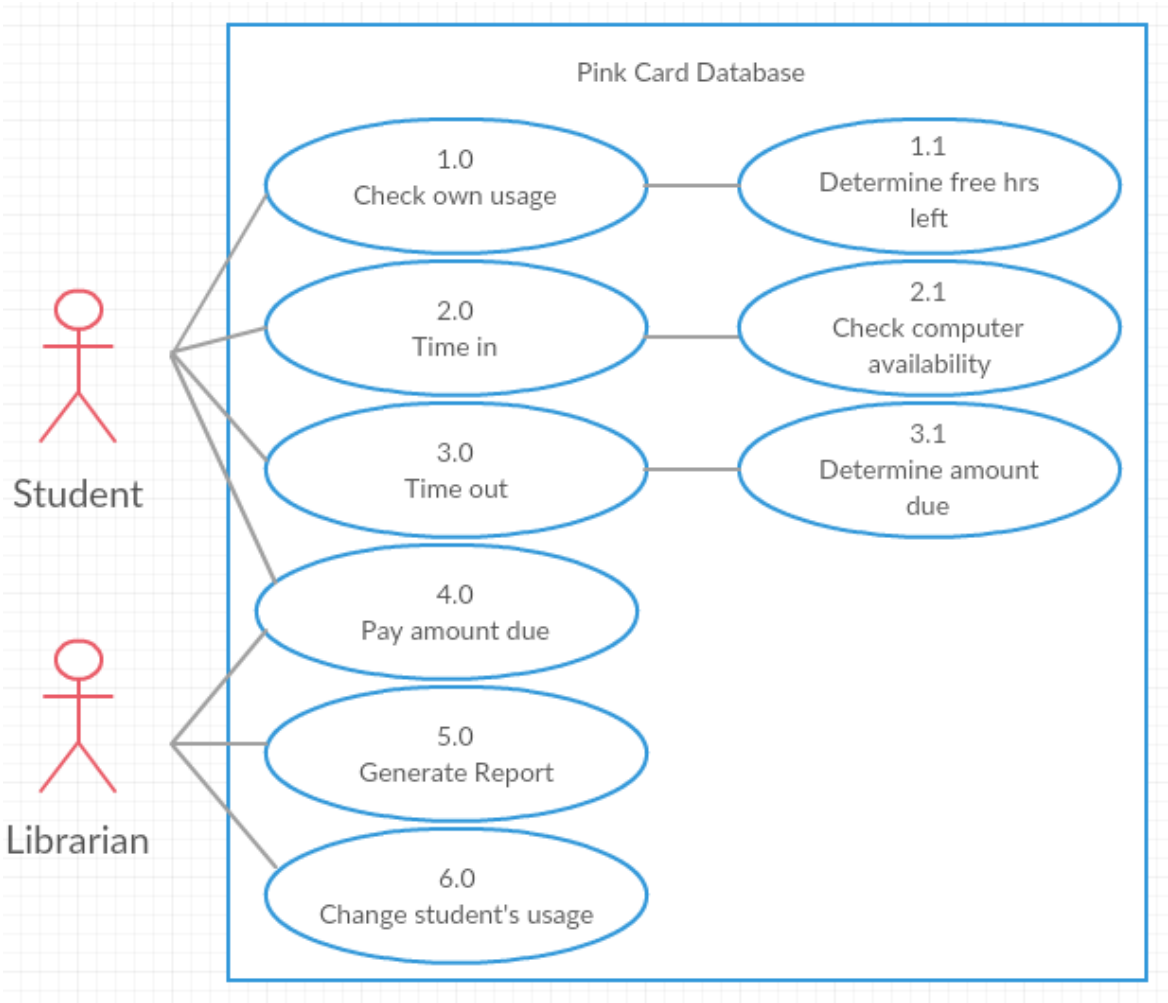
History Revision:

Revision Date	***Person Responsible***	***Version Number***	***Modification***
09/21/17	Carlos Adrian Daroya	1.0	Initial Document; description of document, actors, and use-cases
09/21/17	Jann Willem Cai	1.1	Use Case Diagram
09/22/17	Pauline Ocampo	1.2	Fixed history revision, added unique reference, made minor visual edits

System Name: Pink Card Database

Description: The Pink Card Database is the system that tracks the computer consumption time of students. The digitized system records and mediates all the exchanges between the student and the librarian, from time in/out, determining remaining free hours, and even changing possible errors in transactions. Students are also able to see basic information such as computer availability, usage time, and time remaining as generated by the system upon ID scanning. All information recorded are verified by the librarian with respect to official school records to ensure the consistency and integrity of saved data.

Use-Case Diagram:



List of Actors:

Actors	***Description***
Student	Student is the actor that is responsible for most input data. Upon time in, the student can check own basic information generated using the ID (name, student number, etc.) and computer availability. Upon time out, the student will also see the total usage time and payment due. All information is displayed with an external monitor connected to the pink card database.
Librarian	The librarian is the actor that acts as a moderator for all students using the system. The librarian can change possible errors or inconsistencies in transactions. Upon a student's time out, the librarian also manages the payment transactions.

List of Use-cases:

Use-Case	***Description***
Use-Case 1.0 Check own usage	The student can check account information upon time in. This specifically includes the student's remaining free hours. Additional information such as usage history can be seen with the help of the librarian.
Use-Case 1.1 Determine free hours left	The remaining free hours is displayed on the external monitor upon time in. This is done so that the student can verify the consistency of information and the same time have awareness on his/her usage time. This information is accessed from the database.
Use-Case 2.0 Time in	The student can time in using the ID barcode scanner. Upon time in, the database loads information about the student and starts his/her session on the database. The data loaded includes basic identification and usage history.
Use-Case 2.1 Check computer availability	Upon time in, the pink card database checks if there are still available computers for use. This is done by counting all ID sessions currently timed in and comparing if it's more than the number of computers available. The output will be displayed on the external monitor.
Use-Case 3.0 Time Out	Upon time out, the student's session ends. This prompts the system to generate a report (use-case 5.0) detailing the usage time and amount due. Time out is done by rescanning the ID with the barcode scanner.
Use-Case 3.1 Determine amount due	The amount due is the collective term for usage time and usage fee. This is automatically generated by the system upon time out. This is done by calculating the difference between time and time out.
Use-Case 4.0 Pay Amount Due	Both student and librarian are involved in this use-case. Pay amount due means that the student's pays the librarian for usage time not covered by the student's free hours. This transaction is done by the librarian and not the system.
Use-Case 5.0 Generate Report	Upon student's time out, the system generates a report. This report details the student's usage time and payment due. The librarian verifies and checks the integrity of this report.
Use-Case 6.0 Change student's usage	The librarian has a functionality to edit or change the generated report. There can be systematic errors or even mechanical errors

Use-Case	*Description*
	by the students when tapping the ID. This functionality is present to override such problems.