420-523: Final Project 1

Milestone 4:	***User Interface Design and Data Base Management***
Due Date:	**Dec 2nd 2016**
To be submitted:	It includes the screen displays that provide navigation through the system, the screens and forms that capture data and the reports that the system produces (paper, display, video, media animation, tutorials, etc. The blue print of your system must be finished before we go into the phase of programming, testing and documentation. It does not mean that I am expecting you to program if not for the navigation when you **will show your demo on 2nd of 2016**).

Remember that

1) I can ask for modifications if I deemed necessary at any time in the process until completion phase.

2) This is a formal report and not an assignment. Make sure you will provide a formal report for your customer.

Please refer to your book or equivalent for ideas and template's models plus the screen shots and lists provided at the end of this document

Deliverables:

~~A.~~ ~~Cover letter~~

~~B.~~ ~~Title page of project; from; to; date~~

C. Table of contents

~~D.~~ ~~Executive Summary~~

~~What are you submitting in this milestone and degree of completion~~

~~E.~~ ~~After completing **Milestone 4,** you are submitting **the layouts** of the prototype interfaces that will be shown during your presentation on 2nd of Dec 2016 along with the complimentary documentation.~~

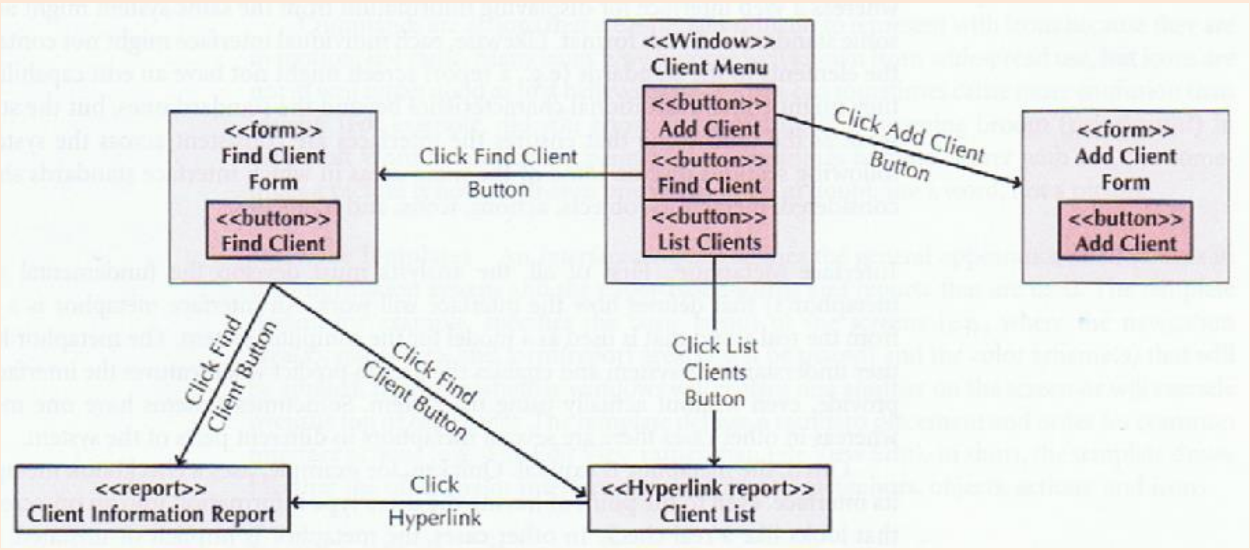
~~On December 16th 2016, you must have a functional design of the main page, forms and reports (at least navigation to and from each form) even when they will be not 100% complete (Final Project II).~~

~~F.~~ ~~Your interfaces must follow a common standard dictated by the choosing of either Windows GUI or Internet Web interface or combination.~~

G. Following the UI design process you will complete a **set of scenarios** that will show the steps to accomplish the work in each interface (i.e. add a new student).

Note: A dialogue reflects the sequence (steps) of interaction between a user and a system. An interface is a method by which users interact with information systems. Be clear that sequence in this phrase does not mean sequence diagrams

H. You will produce a **WND** that puts together all the calls to forms, links, and reports corresponding to the different states components and transitions to illustrate navigation.



Using the interface design standards you will begin to create your prototypes by producing mockup of your forms, reports, etc.

Example:

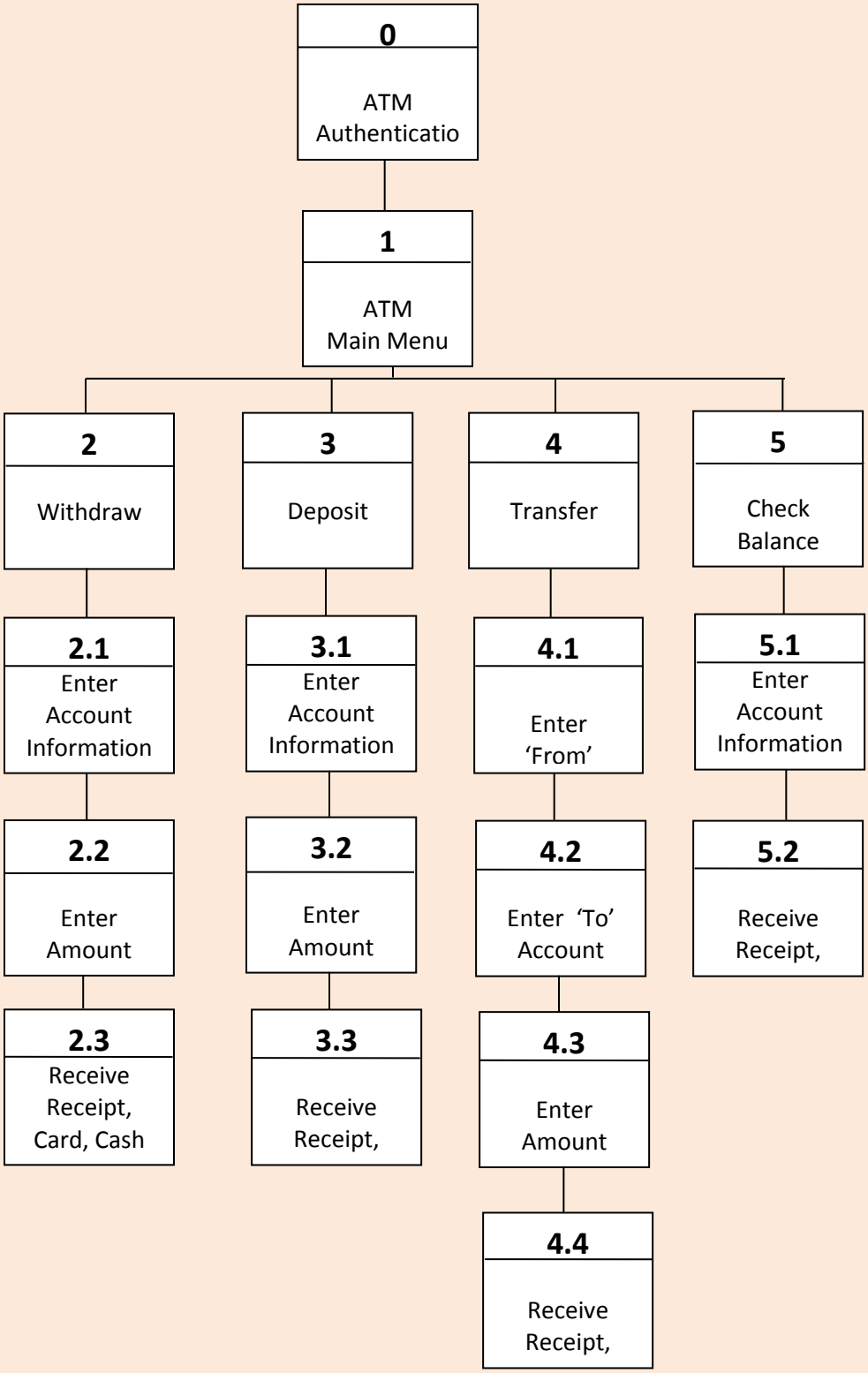
1) Interface Structure Design (standards) for an ATM.

Interface Metaphor: Banking Account Access

Interface Objects: Accounts, Customer, Monetary Amounts

Interface actions: Screen – present options
Customer choice – withdraw, deposit, transfer, check balance
Verification of account status

Interface icons: Bank logo
Account icon – ledger sheet
Customer icon – person
Monetary icon – dollar bill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ATM Authenticatio
1
ATM Main Menu
2
Withdraw
3
Deposit
4
Transfer
5
Check Balance
2.1
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2.3
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3.1
Enter Account Information
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3.3
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4.1
Enter 'From'
4.2
Enter 'To' Account
4.3
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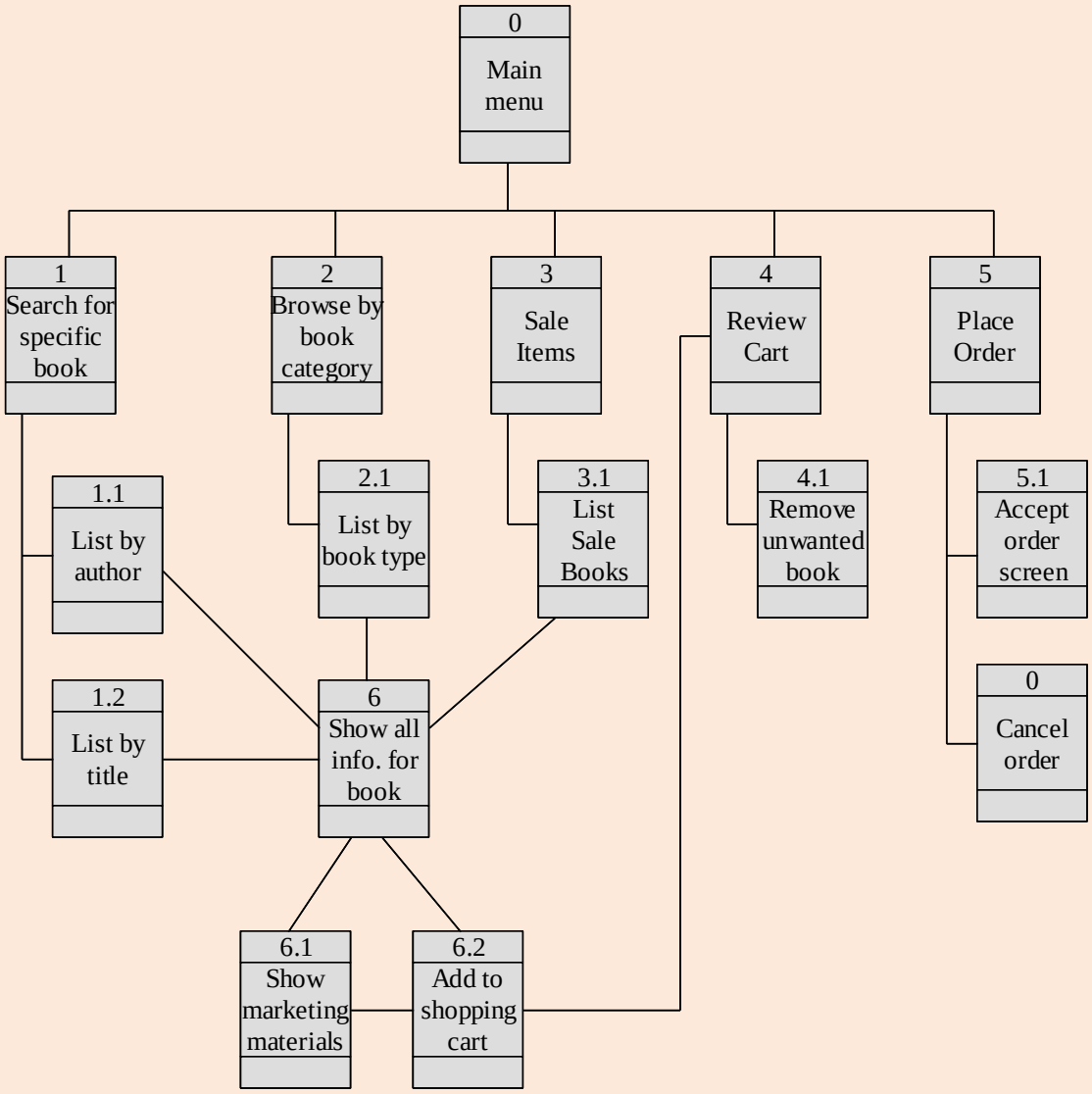
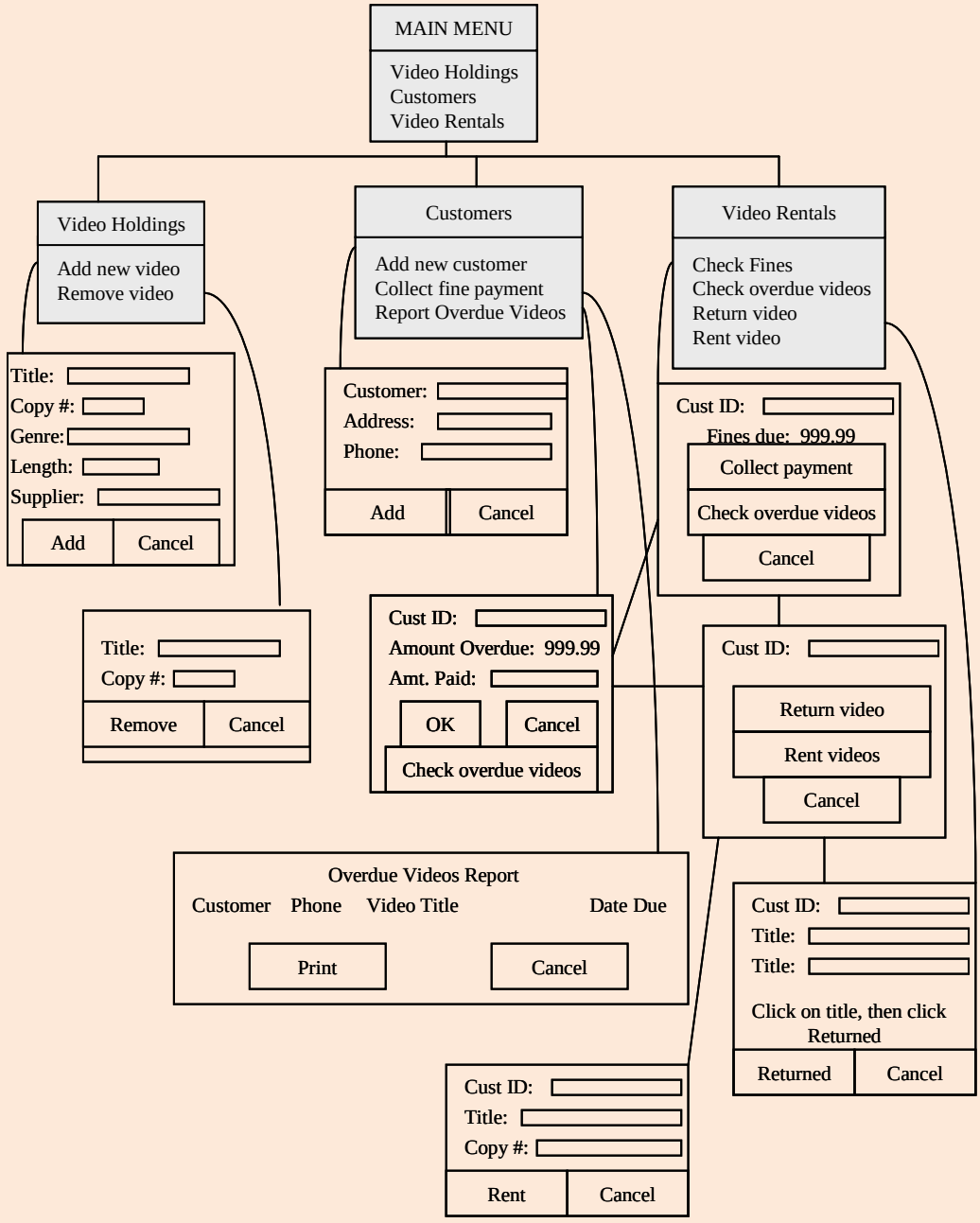
4.4
Receive Receipt,
5.1
Enter Account Information
5.2
Receive Receipt,

2) Draw an ISD for a Web site that sells some retail products (e.g., books, music, clothes).



Also you can produce storyboards to illustrate the sequence of steps to get to your documents and forms



I. ~~Create your **main page design** placing properly all the objects, messages, icons, legal, news, contact info, terms, menu bars, etc.. Following the guidelines for good design.~~

J. Revise t**he Data Flow diagram(s)** with all the messages corresponding to each object in the diagram (interface, domain or data objects).

K. Create your database that corresponds to the EERD diagram and in there create the tables (fully attributed) that will show the constraints, triggers, functions, procedures that automate the processes. **Listing of structures for the database components** should be printed or screen captured. Once the structures are creates, populate data tables with at least 10 records in each to test data, domain and referential integrity

Note; If you are using other type of storage you must again demonstrate how data is kept in your systems (physically, permanently) i.e. how does Google drive keep your information saved?

L. For each of the **Forms or reports** you must produce a mini schema (tables needed to complete the task mini **ERD)**. Include the **SQL command(s)** needed to populate them and program specification.

Extra Guidelines … Notice that legal terms must be present

Program specifications (for each program to be coded specify the following information)

Program Specification

Module _____

Name:
Purpose:
Programmer:
Date Due:
☐ C ☐ PowerScript ☐ COBOL ☐ VISUAL Studio

Events _____

Input Name:	Type:	Used by:	Notes:

Output Name:	Type:	Used by:	Notes:

Pseudocode _____

Other _____

Useful Links
For Web developers

Learn from the guidelines illustrated in the following URL

http://www.smashingmagazine.com/2009/01/19/12-useful-techniques-for-good-user-interface-design-in-web-applications/

Also look at bad designs

http://www.lingscars.com/

confusing

http://www.manidoo.com/

not attractive

http://www.photographertoronto.com/

Ugly

You have to like the date at the bottom of the page — 2004. Now you know why I don't like to see dates on web sites unless you keep them…uh…up to date.
The colors are rather ugly (I'm hoping their restaurant's interior isn't using the site's color scheme) and that huge image in the middle of the page should remind us all:
http://mercedesrestaurants.com/

don't use graphics for text …

Some of the best ranking sites

http://finance.yahoo.com/

http://www.fool.com/

http://www.nextag.com/

http://twitter.com/

http://gawker.com/

http://blog.games.yahoo.com/blog/152-where-did-the-video-games-site-go

http://www.ign.com/

http://www.answers.com/

http://www.reference.com/

http://omg.yahoo.com/

And this one

Special Notes:

- Guidelines for Menu Design
  - ☐ **Wording —** meaningful titles, clear command verbs, mixed upper/lower case
  - ☐ **Organization —** consistent organizing principle
  - ☐ **Length —** all choices fit within screen length
  - ☐ **Selection —** consistent, clear and easy selection methods

- **Highlighting —** only for selected options or unavailable options

- Forms have several general areas in common :
  - Header information
  - Sequence and time-related information
  - Instruction or formatting information
  - Body or data details
  - Totals or data summary
  - Authorization or signatures
  - Comments

Structuring Data Entry

Entry	Never require data that are already online or that can be computed
Defaults	Always provide default values when appropriate
Units	Make clear the type of data units requested for entry
Replacement	Use character replacement when appropriate
Captioning	Always place a caption adjacent to fields
Format	Provide formatting examples
Justify	Automatically justify data entries
Help	Provide context-sensitive help when appropriate

Controlling Data Input

- Objective: Reduce data entry errors
- Common sources data entry errors in a field:
  - Appending: adding additional characters
  - Truncating: losing characters
  - Transcription: entering invalid data
  - Transposing: reversing sequence of characters

Providing Feedback

- Three types of system feedback:
  - ***Status information***: keep user informed of what's going on, helpful when user has to wait for response
  - ***Prompting cues***: tell user when input is needed, and how to provide the input
  - ***Error or warning messages***: inform user that something is wrong, either with data entry or system operation

Providing Help

- Place yourself in user's place when designing help.

- Guidelines for designing usable help:
  - **Simplicity** — Help messages should be short and to the point.
  - **Organize** — Information in help messages should be easily absorbed by users.
  - **Show** — it is useful to explicitly show users how to perform an operation.

Example of a Dialogue Sequence

- Typical dialogue between user and Customer Information System:
  - Request to view individual customer information.
  - Specify the customer of interest.
  - Select the year-to-date transaction summary display.
  - Review the customer information.
  - Leave system.

ALL YOUR SYSTEMS MUST PROVIDE A REPORT SECTION

Start your engines

NOTE: your penalty will be 20% for a day late and 15% for each additional day (max 2) after that the grade is Zero