Circulate	Patron Update	Item Update	Utilities	Quit

Quick overview:

•This prototype is actually based on the current text + hand scanner system now in the local library, updated to a GUI-style system

Input devices are:

•keyboard + mouse

•scanner pen that scans bar code numbers on books

Prototype style: Functional pull down menus

•Circulate: general circulation functions

•Patron update: to update information about a patron's expiry date, personal information, etc

•Item update: to update information about particular holdings e.g., lost + damaged books, the actual information in the holding's database record, etc

•Utilities: a place to put miscellaneous functions

•Quit: a single quit option

Note: I think this system is really bad, but lets see...

Circulate	Patron Update	Item Update	Utilities	Quit

Patron Status
Fines
Checkin
Checkout
Patron Search
Reserve

Status: No patron

The circulate pull down menu brings up appropriate screens:

Patron status: personal information, fines, library card number, etc.

•Fines: to deal specifically with a person's fines

•Check in: to check in books

•Check out: to check out books

•Patron search: to find a customer

•Reserve: to reserve a book

Task 1

- Joan Hart, a regular and experienced library employee, is working behind the counter. Marie Smith, a regular library customer brings three books to the counter <*The Da Vinci Code, Slightly Tempted, I Am an American Soldier*> and asks that they be checked out. Marie doesn't have her library card so Joan finds Marie's library number, checks out the books for her and reminds Marie that she has some late fines to pay. Marie says she will pay for them next time. Joan gives Marie the books, and Marie leaves.

Here is the first (simple) task from last week...

```
┌─────────────────────────────────────────────────────────────────┐
│                                                                   │
│  Circulate      Patron Update   Item Update   Utilities   Quit    │
│ ┌───────────────┐                                                 │
│ │ Patron Status │                                                 │
│ │ Fines         │                                                 │
│ │ Checkin       │                                                 │
│ │ Checkout      │                                                 │
│ │ Patron Search │                                                 │
│ │ Reserve       │                                                 │
│ └───────────────┘                                                 │
│                                                                   │
│                                                                   │
│                                                                   │
│  ┌──────────────────────────────────────────────────────────┐    │
│  │ Status: No patron                                         │    │
│  └──────────────────────────────────────────────────────────┘    │
│                                                                   │
│              Subtask 1: Find Marie's library card number          │
│                a) Select Patron Search with the mouse...          │
│                                                                   │
│                                          Saul Greenberg, James Tam │
└─────────────────────────────────────────────────────────────────┘
```

•At this step we change the implementation independent tasks to a scenario that is dependent on the above implementation:
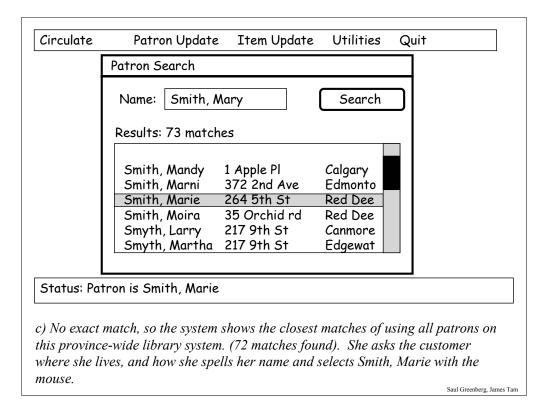
Assuming that the Mary brings the three books to the correct place, and that Joan is ready:

Step 1. Joan finds Mary's librarycard number

a) Must navigate to the search screen by selecting the patron search option

Circulate	Patron Update	Item Update	Utilities	Quit

Patron Search

Name: Smith, Mary   Search

Results

Status: No patron

b) Enter her name.

B) Enter patron's name and presses return or the search button

```
┌─────────────────────────────────────────────────────────────┐
│  Circulate        Patron Update    Item Update    Utilities    Quit  │
│  ┌───────────────────────────────────────────────────────┐  │
│  │ Patron Search                                          │  │
│  │                                                        │  │
│  │   Name:  [ Smith, Mary        ]      [  Search  ]      │  │
│  │                                                        │  │
│  │   Results: 73 matches                                  │  │
│  │   ┌──────────────────────────────────────────────┐█   │  │
│  │   │  Smith, Mandy    1 Apple Pl      Calgary      │█   │  │
│  │   │  Smith, Marni    372 2nd Ave     Edmonto      │█   │  │
│  │   │  Smith, Marie    264 5th St      Red Dee      │    │  │
│  │   │  Smith, Moira    35 Orchid rd    Red Dee      │    │  │
│  │   │  Smyth, Larry    217 9th St      Canmore      │    │  │
│  │   │  Smyth, Martha   217 9th St      Edgewat      │    │  │
│  │   └──────────────────────────────────────────────┘    │  │
│  │                                                        │  │
│  └───────────────────────────────────────────────────────┘  │
│  ┌───────────────────────────────────────────────────────┐  │
│  │ Status: Patron is Smith, Marie                         │  │
│  └───────────────────────────────────────────────────────┘  │
│                                                              │
│  c) No exact match, so the system shows the closest matches of using all patrons on │
│  this province-wide library system. (72 matches found).  She asks the customer │
│  where she lives, and how she spells her name and selects Smith, Marie with the │
│  mouse.                                                       │
│                                         Saul Greenberg, James Tam │
└─────────────────────────────────────────────────────────────┘
```

c) The name was not spelled correctly, so the system returned the closes matches. The librarian can ask for further information (eg the address), and select the correct one.

Note that there are a HUGE number of possible matches, as this system returns name from the entire Alberta database. This is bad, since almost all library patrons will be just from the surrounding area I.e., of 10,000 people.
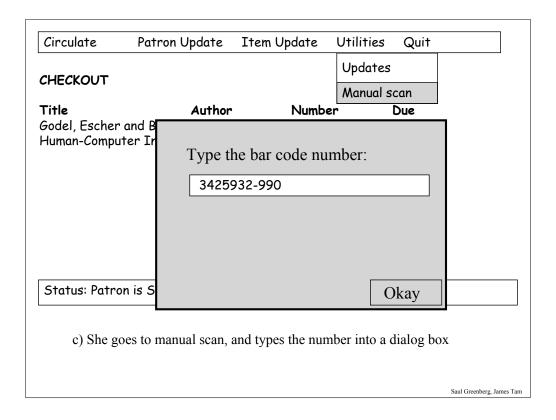
True story: the Canmore library had an old system that let people search by names, and it returned the matches in the town of Canmore. They updated it with a new GUI system, which returned names from all of Alberta. Because of the huge number of matches and the difficulty of finding people's names (we should mention that frequent visitors expected librarians to remember their complete names, but they often only remembered a part of it but were embarrassed to ask for the rest) the library instituted a policy were customers were heavily encouraged to bring in their library cards. Thus a small computer glitch meant that librarians had more work, were sometimes embarrassed because it was clear they could not remember part of a person's name (e.g., a first name) and *all* library customers now had to carry a card with them.

Circulate	Patron Update	Item Update	Utilities	Quit

Patron Status
Fines
Checkin
Checkout
Patron Search
Reserve

Status: Patron is Smith, Marie

Subtask 2: Checking out the books
a) Marie is now the active patron, and the Checkout option is selected

•The name appears on the status bar (note that the system is moded making it more difficult to understand and use!)

•So the librarian has to navigate to the checkout screen by selecting the checkout option

```
┌──────────────────────────────────────────────────────────────┐
│  ┌────────────────────────────────────────────────────────┐  │
│  │ Circulate      Patron Update   Item Update   Utilities   Quit │  │
│  └────────────────────────────────────────────────────────┘  │
│                                                              │
│  CHECKOUT                                                    │
│                                                              │
│  Title              Author        Number        Due         │
│  Godel, Escher and Bach   Hofstadter     3456321-117    7-7-98  │
│  Human-Computer Inter   Baecker, Gr     3654351-998    7-7-98  │
│                                                              │
│                                                              │
│                                                              │
│                                                              │
│  ┌────────────────────────────────────────────────────────┐  │
│  │ Status: Patron is Smith, Marie                          │  │
│  └────────────────────────────────────────────────────────┘  │
│                                                              │
│        b) She scans in the books one at a time,             │
│        but the third book's bar code doesn't seem to want to scan │
│                                                              │
│                                          Saul Greenberg, James Tam │
└──────────────────────────────────────────────────────────────┘
```

•As the books are scanned in, they appear in a list.

•This kind of error (probably due to a dirty bar chart) is reasonably common

| Circulate | Patron Update | Item Update | Utilities | Quit |

CHECKOUT

Updates

Manual scan

| Title | Author | Number | Due |

Godel, Escher and B

Human-Computer In

Type the bar code number:

3425932-990

Status: Patron is S

Okay

c) She goes to manual scan, and types the number into a dialog box

•Note the extra sequence of steps: a new menu selection, and this awkward number must be typed.

```
Circulate      Patron Update    Item Update    Utilities    Quit
```

CHECKOUT

Title	Author	Number	Due
Godel, Escher and Bach	Hofstadter	3456321-117	7-7-98
Human-Computer Inter	Baecker, Gr	3654351-998	7-7-98
Life on the Screen	Turkle	3425932-990	7-7-98

Status: Patron is Smith, Marie

d) And verifies that it is the correct book,
 Note: what would she have to do if she had mistyped it?

•If what she typed was wrong, she now has to repeat the previous process.

•Note that bar codes may be dirty, with numbers sometimes hard to read (e.g., ripped).

•Why is there no way to (say) enter the title/author?

Circulate	Patron Update	Item Update	Utilities	Quit

| Patron Status |
| Fines |
| Checkin |
| Checkout |
| Patron Search |
| Reserve |

	Author	Number	Due
d Bach	Hofstadter	3456321-117	7-7-98
Inter	Baecker, Gr	3654351-998	7-7-98
en	Turkle	3425932-990	7-7-98

Status: Patron is Smith, Marie

Subtask 3: Check fines
a) Select Fines...

•The librarian now has to navigate to a different screen to check for fines.

•You may want to say that this is a bit heavy-weight and the Librarian may not be motivated to do this. Is there a better way to indicate that fines are due?

```
┌─────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────┐    │
│  │ Circulate      Patron Update    Item Update    Utilities   Quit │ │
│  └──────────────────────────────────────────────────────────┘    │
│                                                                   │
│   Fines                                                           │
│                                                                   │
│   Title:         Due            Returned        Amount            │
│   The Tao of Poo   8/3/98       20/3/98         1.20              │
│   All That Jazz    6/4/98       17/4/98         1.35              │
│   Chopin, Tape 1   4/5/98       1/5/98          1.50              │
│   Chopin, Tape 2   4/5/98       1/5/98          1.50              │
│   Chopin, Tape 3   4/5/98       1/5/98          1.50              │
│   Chopin, Tape 4   4/5/98       1/5/98          1.50              │
│                                                                   │
│   ENTER AMOUNT PAID: 0.00                                         │
│                                                                   │
│                                                                   │
│  ┌──────────────────────────────────────────────────────────┐    │
│  │ Status: Patron is Smith, Marie                            │    │
│  └──────────────────────────────────────────────────────────┘    │
│                                                                   │
│  b) She sees fines, adds them up in her head, and reminds the patron about the │
│  outstanding amount of $8.55. The patron says she will pay later, so she types in 0.00, │
│  presses return, which then returns back to the home screen. She gives her the books │
│                                                      Saul Greenberg, James Tam │
└─────────────────────────────────────────────────────────────────┘
```

•Everything is itemized on the fine page.

•Why does she have to calculate the fines in her head?

•Why does the system insist on her typing in the amount of the fine, even

•when it is 0?

Note that at the end of this process, the system returns to the home screen. What if that patron

wanted further information or decided to do something else? The librarian would have to repeat this process…

Concerns Raised From The Walk-Through

Librarian had to navigate to too many screens to do this simple task
- The flow from start to end was overly complex.
- The librarian as had to navigate and work with three screens to do a very routine checkout task.

Some sub-dialogs awkward
- Why do searches of all of Alberta instead of just the local area?
- Why can't she type the bar code directly on the screen, and see the results immediately?
- Why does she have to go to a separate screen to see the fines, why does she have to sum the fines up herself, and why does she have to enter 0 to get out of that screen?

•Indicate that this are major concerns.

Concerns Raised From The Walk-Through

Heavy functional emphasis indicates high level of practice and training required

Note: This looks like a cosmetic GUI over an old text-based system
 • Adding menus, etc doesn't seem to help

Suggests major redesign
 • Can functions be integrated on a single screen?
 • Can the design be simplified?