Completing the SLAMA Application

Constructing queries for forms and views on a database provided to you

Review of San Lucas Police Station Operations

- Part B of Project 3 looks at the next set of operations: the completion of the arrest interaction between suspect and officer, the request for tests, checking of specimens and test results
  - Enter suspect data, officer data
  - Start arrest process of suspect
  - Officer continues arrest and booking
  - Order tests for BAC or Drug
  - Label specimens
  - Compare specimens to manifest (send to lab)
  - Record results from test outcome
  - Provide Arrest report on each suspect

Filling out the Booking Form

- During the final booking process the officer will finish dealing with the suspect and discover more information … where will this information be recorded?
- tblArrest – it represents the event of the suspect interacting with the officer, making tblArrest the most logical location
- What information will be gathered?
  - Field tests done and results obtained
  - Arrest notes- information relevant to arrest
  - Investigation notes-information relevant to current and further investigation
  - Further Tests required
- In other words, we will fill in the other fields of records already started in the Arrest table
Ordering Tests

- Ordering tests for further evidence of intoxication/drugs is done by the arresting officer.
- What activities take place by ordering the test(s)?
  - Collecting specimens ... not an IT task
  - Labeling and checking off specimens from a list
- The label must:
  - Uniquely identify the suspect's arrest, but not be directly tied to it (lab technician should just perform test—not see who it's for)
  - Must specify the test to be run
  - Must identify the San Lucas Police Department
- Creating the tracking number is a task initiated during the Booking process by the arresting Officer.

The Order Button

- Like any command button control, simply use the wizard to place it on the form and program the event handler.
- The difference for Access is that the handler will prepare for different operations... so selecting the right option is important.

Computing the Tracking Number

- After completing the command button wizard, the command button event handler has the following code:

```vbnet
Option Compare Database
Option Explicit
Private Sub XXX_Click()
On Error GoTo Err_XXX_click
DoCmd.DoMenuItem acFormBar, acRecordsMenu, 5, , acMenuVer70
Exit_XXX_Click:
Exit Sub
Err_XXX_click:
MsgBox Err.Description
Resume Exit_XXX_Click
End Sub
```

- Tracking number computation code here.

Enter the Tracking Number

- The tracking number field is something the user cannot enter (locked field) and cannot change, in the click event of the order button enter code that will...

```vbnet
Place the cursor at the tracking number text box: TrackingNumber.SetFocus
Unlock the text box:
TrackingNumber.Locked = False
Assign the text box this value:
TrackingNumber.Text = "SLAMA" & Hex((12*(Year(Date) - Year("10/02/02")) + Month(Date)) * 1000000 + ArrestNum)
Relock the text box:
TrackingNumber.Locked = True
```
Enter the Tracking Number

- What is the tracking number?
  - The letters “SLAMA” followed by the computer’s hexadecimal encoding of the number of months since the creation of the database plus the current month number multiplied by one million, plus the Arrest ID

- The tracking number is reversible, but not easily associated with a suspect or an arrest.

SLAMA Design So Far

- SLAMA has the following components so far (from Part A):
  - tblSuspect table with frmSuspect, this form includes a command button to open frmArrest which starts rows of data in the tblArrest
  - tblOfficer table and frmOfficer form
  - tblArrest Table and frmBooking Form with Order button to set the tracking number

- Now all you need to do is prepare for the rest of the booking processing (determining what tests are to be done, entering results, etc)

- The main idea in lab test processing is to build a new table from the data in tblArrest.

- This new table (virtual table or view) will be the Daily Test Manifest and it is produced through a query.

The Results ...

Click on Order Tests button to create the tracking number if additional Blood and/or Drug tests are requested.

SLAMA Design So Far

- A manifest is a list of things that are supposed to be in a package

- When the specimens are sent to the lab each day, there must be a separate list of all the specimens collected for each test...
  - What information is on the list?
  - How is the information created?

- A manifest for a given day can be created by selecting all those records that have the proper date, a tracking number value and have the test checked... creating a new virtual table
  - Once the main manifest of tests is created, subsets of each individual test can be obtained by using a query on the query!
Queries

- The queries you will use are questions to the database system asking to view the requested data in a new (virtual) table

- Queries can do more than show columns from tables
  - Records with specific properties can be tested
  - We can create a query that keeps only those rows where the Tracking number field is not empty AND a drug OR blood test was requested

Wrapping Up the PSHC Database

- Create frmBooking based off qryBooking
- Set the tracking number for ordered tests
- Build the Daily Test Manifest query
- Labels and Reports may need to be built on sub-queries of Daily Test Manifest
- Build additional queries that will prompt a user for the date and recreate the virtual tables, allowing them to enter results returned from the labs.
  - Use tblArrest for these queries
- MORE EXTRA CREDIT! Create the Prosecutor's report based on a query that will give the information he or she needs (from all 3 tables)
  - The report should be professional looking with Police station information, all vital information needed for case

Criteria For Testing in QBE

- How would you make sure it's the current date?
- How would you get all tests requested on the list?