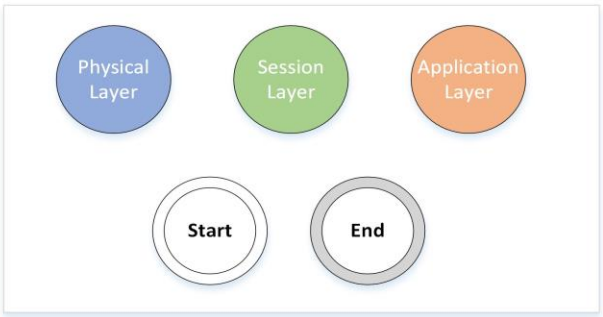

COMP 3980: Assignment 2
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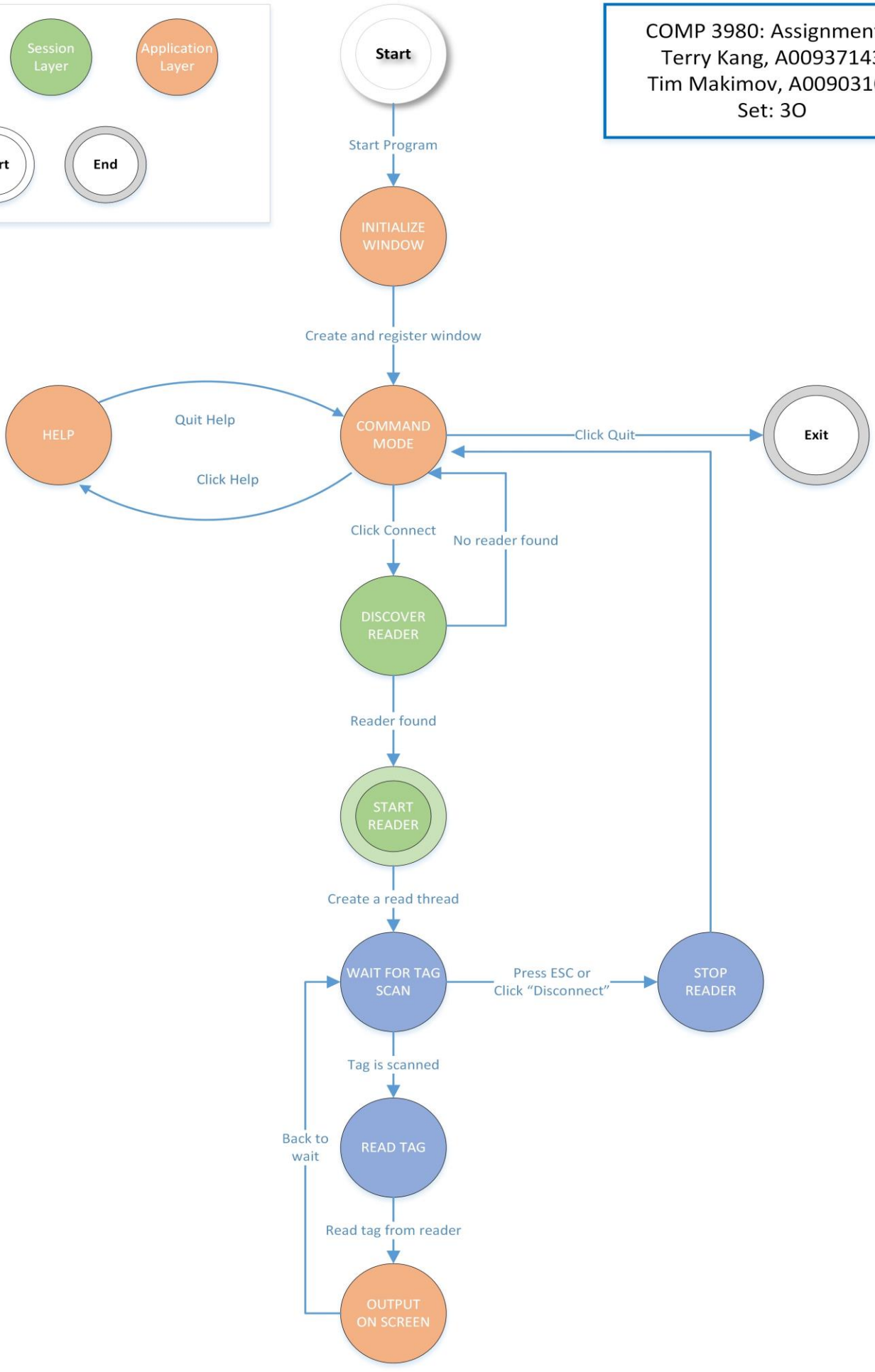
Set: 3O



SKYETEK RFID Reader Pseudo Code

Author: Terry Kang

Date: Nov 15th, 2016

START

Routine Name: start

Preconditions:

- Starts the program execution

INITIALIZE WINDOWS

Routine Name: initilizeWIndow

Activity Flow:

1. Register the main Window
2. Register the menus
3. Show the Window
4. Register user command procedure
5. Start **COMMAND MODE (State)**

COMMAND MODE

Routine Name: `WndProc`

Preconditions:

- Windows are generated.
- User command procedure is registered.

Activity Flow:

1. If user clicks help menu
    - Popup help dialog that explains how to use this program.
2. If user clicks exit menu
    - Exit the program
3. If user clicks exit menu
    - Start **DISCOVER READERS(State)**

DISCOVER READER

Routine Name: connectReader

Activity Flow:

1. Search the connected RFID reader
2. If the reader is found
    - Connect to the reader
    - Go to **START READER(State)**
3. If no reader are found
    - Go back to **COMMAND MODE(State)**

START READER

Routine Name: `startRead`

Preconditions:

- RFID reader is found
- The connection to RFID reader is established

Activity Flow:

1. Create a thread for reading tag from RFID device

WAIT FOR TAG FOUND

Routine Name: `selectTag`

Preconditions:

- Read thread is created without errors.

Activity Flow:

1. Wait for the tag is detected by RFID reader.
2. If tag is detected, go to **READ TAG(State)**
3. If user press ESC key or click disconnect menu
    - Stop waiting for the tag
    - Go to **STOP READER(State)**

START READER

Routine Name: `stopRead`

Preconditions:

1. Read thread is created and not closed yet

Activity Flow:

1. Stop the read thread
2. Go to **COMMAND MODE(State)**

READ TAG

Routine Name: `tagFound`

Preconditions:

- The tag is detected by the reader

Activity Flow:

1. Read the information of detected tag from the RFID reader
2. If the tag is not previously detected and not displayed
    - Store the tag information into the list
3. Go to **DISPLAY ON SCREEN(State)**

READ TAG

Routine Name: `displayTag`

Preconditions:

- The tag is detected and read
- The list of read tags is not empty

Activity Flow:

1. Display the tag information stored in the list
2. Highlight the most recent tag information
3. Go to **WAIT FOR TAG FOUND(State)**