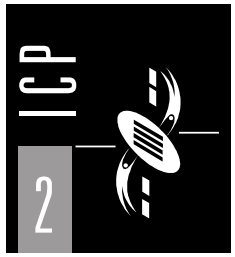

Advanced Multimedia Development

Subject Code: CIC2P13

Diploma in Internet Computing

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ADVANCED MULTIMEDIA DEVELOPMENT (CIC2P13)
Laboratory Five

Please follow the textbooks for the lab exercises:
Macromedia Flash MX 2004 Game Programming – Graig S. Murray, Justin Everett-Church (2003)

Please use Flash MX 2004

Please refer to the subject website for example files and resource files:

At the end of this lab session, students should be able to:

- Create Dynamic movie clip instances with ActionScript
- Create and manipulate arrays with ActionScript
- Create a game "Match Them Up" (or Card Matching) with ActionScript programming

Exercise 1 – Flash ActionScript

(estimated time: 1 hour)

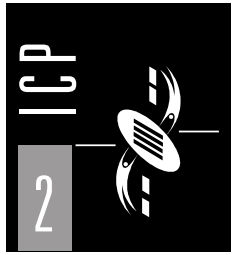
Example: ch4_01_dynamic_MovieClip.fla
Reading / Reference: Textbook Pg130 to 133

Example: ch4_02_attachCliptoClip.fla
Reading / Reference: Textbook Pg134

Example: ch4_03_duplicate_remove_MovieClip.fla
Reading / Reference: Textbook Pg135 to 137

Example: ch4_04_CreateEmptyClips.fla
Reading / Reference: Textbook Pg138

Example: ch4_05_DynamicEventHandlerOnEnterFrame.fla
Reading / Reference: Textbook Pg141 to 145



Example: ch4_06_DynamicEventHandlerOnMouseDown.fla
Reading / Reference: Textbook Pg146 to 148

Example: ch5_01_accessingArray.fla
Reading / Reference: Textbook Pg184 to 187

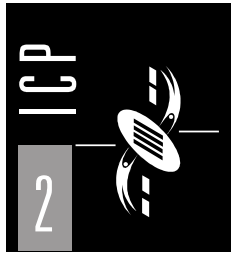
Example: ch5_02_ArrayMethods.fla
Reading / Reference: Textbook Pg190 to 191

Example: ch5_03_multidimensionalArrays.fla
Reading / Reference: Textbook Pg205 to 208

Exercise 2 – Game: Match Them Up (Card matching)
(estimated time: 2 hours with lecturer's guidance, 3 hours self practice)

Major Tasks

1. Create two of each tile instance on the board
   Subtasks:
   i. Create a new tile
   ii. Set up each tile (2-D array)
2. Create 16 tile blocker instances on the board. (Tile blockers are used to hide tiles that are "flipped over")
   Subtasks:
   i. Create a new tile blocker
   ii. Set up each tile blocker (2-D array) **- match_em_up_step1.fla**
3. Lay out the tiles in a 4x4 block on the stage
   Subtasks
   i. Lay out the 4x4 tiles
   ii. Lay out the 4x4 tile blokers **- match_em_up_step2.fla**



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4. Shuffle the tiles randomly
   Subtasks:
   i. The shuffleTiles function
   ii. Exchange 2 tiles randomly for 200 times
   iii. Random function
   iv. Swap 2 tiles
5. Flip all the tiles face down
   Subtasks:
   i. Use the blocker tiles to block all the tiles **- match_em_up_step3.fla**
6. Wait for the player to make a move by flipping two tiles
   Subtasks:
   i. Detecting the user's mouse clicks
   ii. User picks his first tile
   iii. User picks his second tile **- match_em_up_step4.fla**
7. If the flipped tiles match and all the tiles are flipped, the player wins. Go to step 4
   Subtasks:
   i. Testing if the game is won
   ii. Resetting the game - **match_em_up_step5.fla**
   iii. Pausing after second tile
   iv. The getTimer function - **match_em_up_step6.fla**
8. If the flipped tiles match but not all the tiles are flipped, go to step 6
   Implement logic in major task 6 above
9. If the flipped tiles do not match, flip them back over and go to step 6
   Implement logic in major task 6 above

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Download the file match_em_up_step0.fla from the subject website. Rename it to mouse_chaser_step1. (You have some movie symbols created for you.)

Refer to textbook **Pg210 to 229**, and follow the tasks breakdown above.
Follow the example files from the subject website, build the game step by step.