



CSA 2100 – Techniques in OSs (Windows Programming) Course Assignment 2006

Department of Computer Science and A. I.
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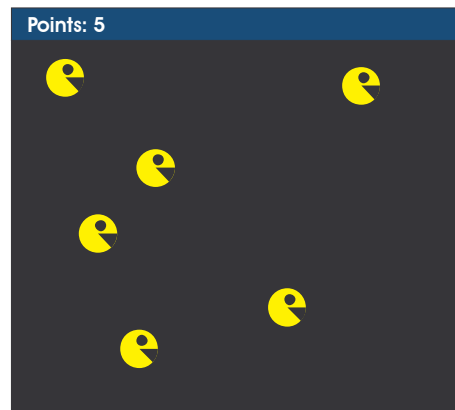
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Win32 Programming

- The mark carries by this assignment will be announced in class.
- Basic requirements:
 - A Windows application written using low-level Win32 API calls.
 - Main window has a fixed size of 640 by 480 pixels (not resizable) and has a black background.
 - A number of characters 'fall' down (top to bottom) the window starting from random locations at the top.
 - Characters may be drawn to look like classical 'space invaders' characters using squares and/or circles. Keep the design of each character to less than 5 squares and/or circles.
 - When the player hits a character with the mouse (clicks on the character) the player earns a point.
 - When the character hits the bottom of the window without being 'hit' the player loses a point.
 - Keyboard shortcuts:
 - Up button: slows down the speed at which characters 'fall' down the screen.
 - Down button: increases the speed at which characters 'fall' down the screen.
 - Left button: decreases the rate at which characters are generated.
 - Right button: increases the rate at which characters are generated – stick to a maximum of around 20 characters at a time.
 - The score is written in the caption of the window's title bar.
 - Double buffering (off-screen buffer) has to be used to avoid flickering when drawing characters.

- Sample screen shot:



- Sample characters using squares and circles (game needs only one character type so just choose any one of these or create your own design):



- The program must be accompanied by a **short** technical report describing any implementation details and techniques used to complete the assignment.
- PLAGIARISM WILL NOT BE TOLERATED.
- Refer to the assignment instructions at <http://webster.cs.um.edu.mt/kguil/assignment.html>