Comp2611 project flow chart Che Siu Hei 20701820 shcheaa@connect.ust.hk .data segment Jal move_player_up number of enemies alive, their position, status, id etc J pmi_check_buffer y loc of player < upper-border (0)? Jal pmi changer dir define bullet: location, id, type, half size, direction, y_loc -= player_speed .text segment main: change the value of enemy_num top left corner of player in cell type 0? prompt user to input number of enemies read user input of number of enemies get the type of cell located at the new top-middle of set move_iteration and buffered_move_key to 0 create the screen create bullet object and set its status(id, location create a specific number of enemy objects and set create the broken home and hide it top middle of player in cell type 0? J game_loop update the new y_loc to the player object refresh screen bottom middle of player in cell type 0? input_key = ASCII value of the input get the type of cell located at the new bottom-mid let mars java threat sleep for 30 milliseconds input_key = 0 create game over logo object at the game over bottom left corner of player in cell type 0 beq process_game_win is game_over == 1 ? create game win text "You Win!" at the game win get the type of cell located at the new bottom-left are all enemies killed? buffered_move_key == 's' change the direction of the player object Jal process_tank_shoot y_loc of player > lower-border (height -1)2 Jal new bullet Jal move_player_down Jal bullet move set remaining_bullet = 0, change bullet direction direction = up? game_move_user: change the direction of the player object buffered_move_key == 'a' Jal process_move_input move_iteration = initial_move_iteration - 1 get the type of cell located at the new top-left corner of player with get_bitmap_cell (D) input_key == 'w' top left corner of player in cell type 0? input_key == 's' get the type of cell located at the new left-middle of buffered_move_key = input_key input_key == 'a' left middle of player in cell type 0? bullet hit border? (C) input_key == 'd' right middle of player in cell type 0? top left corner of bullet hit enemy? (B) Jal move_player_up get the type of cell located at the new right-middle of get the type of cell located at the top left corner of bullet with get_bitmap_cell (D) move_key == 'w' player_dir = move_key change the direction of the player object top left corner of bullet in cell type 0? get the type of cell located at the new top-left corner of player with get_bitmap_cell (D) get the type of cell located at the new upper-right top right corner of bullet hit enemy? (B) corner of player with get_bitmap_cell (D) top left corner of player in cell type 0? change the direction of the player object get the type of cell located at the top right corner of get the type of cell located at the new top-middle of Jal pmi_changer_dir x_loc of player > lower-border (width -1)2 player with get_bitmap_cell (D) Jal move_player_right top right corner of bullet in cell type 0? top middle of player in cell type 0? bottom left corner of bullet hit enemy? (B) get the type of cell located at the bottom left corner of bullet with get_bitmap_cell (D) bottom middle of player in cell type 0? bottom left corner of bullet in cell type 02 get the type of cell located at the new bottom-middle of player with get_bitmap_cell (D) bottom right corner of bullet hit enemy? (B) get the type of cell located at the bottom right corner of bullet with get_bitmap_cell (D) get the type of cell located at the new bottom-left corner of player with get_bitmap_cell (D) bottom right corner of bullet in cell type 02 move_key == 's' change the direction of the player object Jal pmi_changer_dir y_loc of player > lower-border (height -1)2 bullet_collision = 0 Jal move_player_down is there a collision with the bullet? remaining_bullet = 1, then hide the bullet at (1000, Beq pc_hit_enemy1 update the new location to the bullet object Jal move_player_left x loc of player < upper-border (0)? move_key == 'a' of player with get_bitmap_cell (D) top left corner of player in cell type 0? y_loc += half the height of tank left middle of player in cell type 0? update the new x_loc to the player object move_iteration = 0 right middle of player in cell type 0? get the type of cell located at the new right-middle of y_loc += half the width of tank player with get_bitmap_cell (D) upper-right corner of player in cell type 02 get the type of cell located at the new upper-right corner of player with get_bitmap_cell (D) move_key == 'd' change the direction of the player object Jal pmi_changer_dir Jal move_player_right Jal process_collision (process_collision) change the cell type = 0 in bitmap show effects of brick wall disappear in that cell save enemy1_locs with updated location is enemy_num == 1? set specific enemy alive status to 0 and minus enemy_alive_num by 1 is enemy2 alive? move enemy2 object (system call) save enemy2_locs with updated location game_move_shoot: enemy1 shoot (system call) (check_hit_enemy) did enemy1 shoot player? \$v0 = 4 (hit enemy1) enemy_num = 2? did enemy1 hit any brick wall? edit bitmap with the index given by system call (\$a0) change that cell type to 0 did enemy1 hit 2 brick wall? \$v0 = 5 (hit enemy2) edit bitmap with the index given by system call (\$a1) is enemy_num == 1? (hit_border) enemy2 shoot (system call) did enemy2 shoot player did enemy2 hit any brick wall? x_loc + size > width ? edit bitmap with the index given by system call (\$a0

\$v0 = 0 (didn't hit border)

x_loc < 0 ?

\$v0 = type in that cell

(get_bitmap_cell)

did enemy2 hit 2 brick wall?

edit bitmap with the index given by system call (\$a1)