

class JavaCraft

Pseudocode

BEGIN

Define global constants/variables and assign values to some;

Initialize game by assigning some global variables;

Generate world with different blocks by using randomness;

PRINT INFO `instructions`;

PRINT INFO "Start the game? (Y/N): ";

IF `

Set `

Set `

Set `

Set `

WHILE true

PRINT INFO `initial UI containing legend, world, inventory`;

PRINT INFO "Enter your action: 'WASD': Move, 'M': Mine, 'P': Place, 'C': Craft, 'I': Interact, 'Save': Save, 'Load': Load, 'Exit': Quit, 'Unlock': Unlock Secret Door\n" (colored in green);

IF `

IF `

Set `

Move player;

ELSE IF `

IF `

Set `

Mine block;

ELSE IF `

PRINT INFO `players inventory`;

PRINT INFO "Enter the block type to place: ";

Place block `

ELSE IF `

PRINT INFO `crafting recipes`;

PRINT INFO "Enter the recipe number to craft: ";

Craft item `

ELSE IF `

Interact with world;

ELSE IF `

PRINT INFO "Enter the file name to save the game state: ";

Save game as `

ELSE IF `

PRINT INFO "Enter the file name to load the game state: ";

Load game from `

ELSE IF `

PRINT INFO "Exiting the game. Goodbye!\n";

Exit game;

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ELSE IF `<String> READ user input` == "look" (caseless check)
    Print all blocks surrounding player;
ELSE IF `<String> READ user input` == "unlock" (caseless check)
    Set `<boolean> unlockMode` = true;
ELSE IF `<String> READ user input` == "getflag" (caseless check)
    TRY TO
        Set up connection to a server;
        PRINT INFO " " + `<String> get country from server via a
POST request`;
        PRINT INFO " " + `<String> get quote from server via a POST
request`;
    ON EXCEPTION
        PRINT ERROR containing `stacktrace`;
        PRINT ERROR "Error connecting to the server";
        Wait on player to press ENTER;
ELSE IF `<String> READ user input` == "open" (caseless check)
    IF `<boolean> unlockMode` == true AND `<boolean>
craftingCommandEntered` == true AND `<boolean> miningCommandEntered` ==
true AND `<boolean> movementCommandEntered` == true
        Set `<boolean> secretDoorUnlocked` = true;
        Reset world to an empty world;
        PRINT INFO "Secret door unlocked!\n";
        Wait on player to press ENTER;
    ELSE
        PRINT WARNING "Invalid passkey. Try again!\n";
        Set `<boolean> unlockMode` = false;
        Set `<boolean> craftingCommandEntered` = false;
        Set `<boolean> miningCommandEntered` = false;
        Set `<boolean> movementCommandEntered` = false;
ELSE
    PRINT WARNING "Invalid input. Please try again." (colored in
yellow);
    IF `<boolean> unlockMode` == true
        IF `<String> READ user input` == "c" (caseless check)
            Set `<boolean> craftingCommandEntered` = true;
        IF `<String> READ user input` == "m" (caseless check)
            Set `<boolean> miningCommandEntered` = true;
    IF `<boolean> secretDoorUnlocked` == true
        PRINT INFO `description of current state`;
        Set `<boolean> inSecretArea` = true;
        Reset world to an empty world;
        Set `<boolean> secretDoorUnlocked` = false;
        Fill `<Integer list> inventory` with all available blockTypes;
        Wait on player to press ENTER;
ELSE
    Exit game;

END

```

Flowchart

 flowchart-JavaCraft.svg