Python Program 3  
The Chessboard Problem: Detailed Design

CS 1030 – T/TH

Anthony L. Pilla

**Introduction:** The following is the detailed design for program Checker.py. They will be labeled by steps (ex S1, S2, S3 etc…). The comments in program Checker.py will elaborate on the program.

**Overview:** To allow a user a letter and number and it will inform the user if the letter and number are 1.) on the chessboard, 2.) if it is on the board whether the block is white or black.

**Design:**

S1: Create a message welcoming the user and explain that premise of the chessboard.

S2: Ask the user for a combination of letters and numbers

S3: Create a variable for the users input (this input should be a defined letter from a-h and number 1-8)

S4: Create a list of all the possible combinations from the user (i.e. white and black spaces/ letter and number combinations) (make sure this accounts for both lower and upper case).

S5: If the letter/number combination is on the board: respond back that letter combination is on the board

S6: If the letter/number combination is not on the board: respond back that letter combination is not on the board and exit program

S7: Create an (9) “if”, “elif”, and “else” statements to run the possible combinations from the user

S8: If the user enters a combination that is not a space on the board, respond back “That combination is not on the board!” and exit program.

S9: The response should be: “You are on a (S9 List Space)!”

S10: Here is the chess board you will be seeing lists from.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A8 | B8 | C8 | D8 | E8 | F8 | G8 | H8 |
| A7 | B7 | C7 | D7 | E7 | F7 | G7 | H7 |
| A6 | B6 | C6 | D6 | E6 | F6 | G6 | H6 |
| A5 | B5 | C5 | D5 | E5 | F5 | G5 | H5 |
| A4 | B4 | C4 | D4 | E4 | F4 | G4 | H4 |
| A3 | B3 | C3 | D3 | E3 | F3 | G3 | H3 |
| A2 | B2 | C2 | D2 | E2 | F2 | G2 | H2 |
| A1 | B1 | C1 | D1 | E1 | F1 | G1 | H1 |

S11: Exit program