Task 2

1. **Explain what happens when a piece is moved off the right-hand edge of the board.** An index error is shown as the file coordinate is more than 8. As the furthest coordinate right is 8 anything entered more than 8 will show this error meaning the player has tried to move off the right hand edge of the board which is an illegal move.

2. **Explain what happens when a piece is move off the left-hand edge of the board.** An index error is shown as the file coordinate is less than 1. As the furthest coordinate left is 1 anything entered less than 1 will show this error meaning the player has tried to move off the left hand edge of the board which is an illegal move.

3. **Explain what happens when a piece is moved off the top edge of the board.** When a piece is moved off the top edge of the board the piece disappears.

4. **Explain what happens when a piece is moved off the bottom edge of the board.** An index error is shown as the rank coordinate is more than 8. As the furthest coordinate downwards is 8 anything entered more than 8 will show this error meaning the player has tried to move off the bottom of the board which is an illegal move.

5. **Explain any differences you encountered whilst attempting the above questions (1-4).** Moving a peice off the bottom, left or right resulted in an index error to occur however moving a piece off the top off the board would simply remove it from the board with no error.

6. **Identify the function responsible for validating whether a move is acceptable or not.** CheckMoveIsLegal(Board, StartRank, StartFile, FinishRank, FinishFile, WhoseTurn)

Task 3

1. **Identify the function responsible for getting the move from the user.** GetMove(StartSquare, FinishSquare)

Task 5

1. **Describe what is returned by the game when a position on the board containing a piece is selected e.g. Board[4][3] (if there where a piece in that position).** Nothing is returned from the game. If a position on the board with an opponents piece is selected and it is a legal move your piece will simply take over that place removing the previous piece from the game.

   3 . **Identify the function responsible for moving the pieces on the**

board. MakeMove(Board, StartRank, StartFile, FinishRank, FinishFile, WhoseTurn)

Task 6

1. **Identify the function where the Redum is promoted to the marzaz Pani.** MakeMove(Board, StartRank, StartFile, FinishRank, FinishFile, WhoseTurn)

Task 7

1. **Identify the function where the board is generated to be displayed.** DisplayBoard(Board)

Task 8

1. **Describe each variable role in your own words.**

Fixed Value: A varible that holds a value that is either hardcoded or inputed by the user but with no calculations or changes.

Stepper: A variable that acts as a counter when iterating through a loop giving a systamatic value each loop.

Most recent holder: A variable that stores the most recent value at any point when processing multiple values to assign to a variable.

Most wanted holder: A variable that holds the correct value(s) from a list of variables when we given a condition. E.g smallest number.

Gather: A variable that holds a value which is accumulated after effects of other values.

Transformation: A variable that changes after a stated calculation with other variable.

Follower: A variable that is updated with the leftover value of another data item.

Temporary: A variable that hold a value for a limited time

1. **Give an example of variable from the program code for each variable role (if possible).**

Fixed Value: `BOARDDIMENSION = 8`

Stepper: `for Count in range(BOARDDIMENSION + 1):`

Most recent holder: StartRank = StartSquare % 10

Most wanted holder:

Gather:

Transformation: FinishRank = FinishSquare % 10

Follower:

Temporary: StartSquare = int(input("Enter coordinates of square containing piece to move (file first): "))

Task 9

1. **Describe the difference between passing by value and passing by reference in your own words.** Passing by reference means passing in a variable name that is assigned to a value to use. We can then return this same variable and the changes made to it will be updated. Passing by value is passing in an arguement to a function which creates a copy for the function to process. We can return the outcome of the function but the original argument will stay the same.

2. **For each function in the program identify the mechanism using to pass each parameter.**

CreateBoard() = **None**

DisplayWhoseTurnItIs(WhoseTurn) = **By Value**

GetTypeOfGame() = **None**

DisplayWinner(WhoseTurn) = **By Value**

CheckIfGameWillBeWon(Board, FinishRank, FinishFile) = **By Value and Reference**

DisplayBoard(Board) = **By Reference**

CheckRedumMoveIsLegal(Board, StartRank, StartFile, FinishRank, FinishFile, ColourOfPiece) = **By Value and Reference**

CheckSarrumMoveIsLegal(Board, StartRank, StartFile, FinishRank, FinishFile) = **By Value and Reference**

CheckGisgigirMoveIsLegal(Board, StartRank, StartFile, FinishRank, FinishFile) = **By Value and Reference**

CheckNabuMoveIsLegal(Board, StartRank, StartFile, FinishRank, FinishFile) = **By Value and Reference**

CheckMarzazPaniMoveIsLegal(Board, StartRank, StartFile, FinishRank,

FinishFile) = **By Value and Reference**

CheckEtluMoveIsLegal(Board, StartRank, StartFile, FinishRank, FinishFile) = **By Value and Reference**

CheckMoveIsLegal(Board, StartRank, StartFile, FinishRank, FinishFile, WhoseTurn) = **By Value and Reference**

InitialiseBoard(Board) = **By Reference**

GetMove(StartSquare, FinishSquare) = **By Value**

MakeMove(Board, StartRank, StartFile, FinishRank, FinishFile, WhoseTurn) = **By Value and Reference**

ConfirmMove(StartSquare, FinishSquare) = **By Value**

GetPieceName(Board, StartRank, StartFile, FinishRank, FinishFile) = **By Value and Reference**