Function movement with parameters (movej= first index of the initial move, movei= second index of the initial move, movefj= first index of the final move, movefi = second index of the final move)

Temp=board[movej] [movei]

If board[movefj] [movefi] is upper case letter(black)

Add board[movefj] [movefi] to black died pieces

increase the counter of black died pieces 1

else if board[movefj] [movefi] is lower case letter(white)

Add board[movefj] [movefi] to white died pieces

increase the counter of white died pieces 1

if movei+movej is an even number

board[movej][movei] = ‘-‘

else

board[movej][movei] = ‘.’

board[movefj] [movefi]= temp

Function CheckMovement with parameters (movej= first index of the initial move, movei= second index of the initial move, movefj= first index of the final move, movefi = second index of the final move, piece= piece color , pro=promotion(fifth character))

x=0

If piece =w

If board[movefj][movefi] is black or ‘.’ or ‘-‘ and board[movej][movei] is white

Check board[movej][movei]

If it is ‘p’

Check pawn movement with CheckPawnW and record the returned value in x

If it is ‘r’

Check rook movement with CheckRook and record the returned value in x

If it is ‘n’

Check knight movement with CheckKhight and record the returned value in x

If it is ‘b’

Check bishop movement with CheckBishop and record the returned value in x

If it is ‘k’

Check king movement with CheckKing and record the returned value in x

If it is ‘q’

Check queen movement with CheckQueen and record the returned value in x

Return the x value.

If piece =b

If board[movefj][movefi] is white or ‘.’ or ‘-‘ and board[movej][movei] is black

Check board[movej][movei]

If it is ‘p’

Check pawn movement with CheckPawnB and record the returned value in x

If it is ‘r’

Check rook movement with CheckRook and record the returned value in x

If it is ‘n’

Check knight movement with CheckKhight and record the returned value in x

If it is ‘b’

Check bishop movement with CheckBishop and record the returned value in x

If it is ‘k’

Check king movement with CheckKing and record the returned value in x

If it is ‘q’

Check queen movement with CheckQueen and record the returned value in x

Return the x value.

Else

Return 0

Function save with parameter (piece= piece color)

Display to the user “Enter the name of the save file”

take the name of the saved file from user

open file by the name of the entered file name in writing mode (create if not found)

loop i from 0 to 8

loop j from 0 to 8

store board [i][j] in the file

loop i from 0 to 4

store R[i] in the file after converting it into charcters

loop i from 0 to 8

store pw[i] in the file after converting it into charcters

loop i from 0 to 8

store pb[i] in the file after converting it into charcters

store piece in the file

loop i from 0 to number of white died pieces

store white died pieces in the file

loop i from 0 to number of black died pieces

store black died pieces in the file

close the file

Function load with parameter (piece= piece color)

Display to the user “Enter the name of the load file”

loop until the user enter a valid load file name

take the name of the load file from the user

open the file with this name in the reading mode (doesn’t open any thing if not found

if it is found

break the loop

if not found

Display to the user “not found”

Loop until the end of file

If i < 8 and j<8

Board[i][j] = c(character from the file)

j = j + 1

If j=8

Increse i 1

J=0

Continue the loop

If i >= 8 and j <12

R[i-8] = c after convert the characters into numbers

i = i + 1

Continue the loop

If i >= 12 and j <20

pw[i-12] = c after convert the characters into numbers

i = i + 1

Continue the loop

If i >= 20 and j <28

pb[i-20] = c after convert the characters into numbers

i = i + 1

Continue the loop

If i=28

Piece =c

i = i + 1

Continue the loop

If i =29 && c is lower case character

Load the white died pieces

Increase counter of white dead pieces

Continue the loop

If i =29 && c is upper case character

Load the black died pieces

Increase counter of black dead pieces

Continue the loop

Close the opened file