ChessLang

A Language for Chess Programmers

By: Aria Kafie

Purpose & Philosophy

- ChessLang is designed to make chess-programming easy and elegant for programmers of all skillsets.
- ChessLang aims to reach this goal while still keeping programmer's engines fast and efficient.
- By making chess-programming more accessible to beginners, ChessLang will foster innovation and collaboration in the computer chess community.

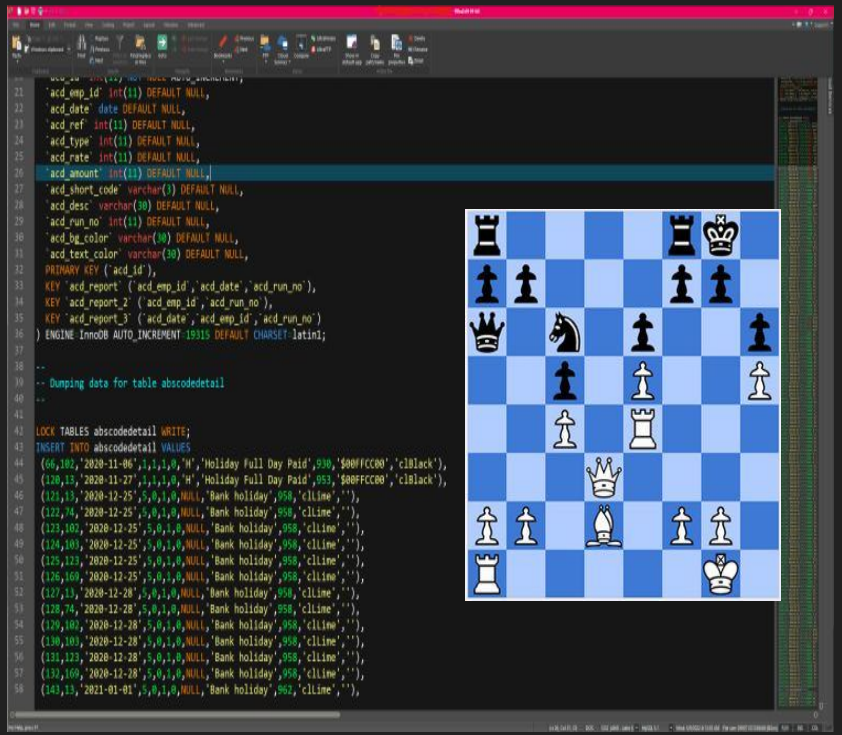
Language Style

```
S S S T S S T   S S S L:Push_+1001000=72='H'_onto_the_stack
T     L
S S :Output_'H';_S S S T     T     S S T   S T     L:Push_+1100101=101='e'_onto_the_stack
T     L
S S :Output_'e';_S S S T     T     S T     T     S S L:+1101100=108='l'
T     L
S S S S S T     T     S T     T     S S L:+1101100=108='l'
T     L
S S S S S T     T     S T     T     T     T     L:+1101111=111='o'
T     L
S S S S S T     S T     T     S S L:+101100=44=','
T     L
S S S S S T     S S S S S L:+100000=32=Space
T     L
S S S S S T     T     T     S T     T     T     L:+1110111=119='w'
T     L
S S S S S T     T     S T     T     T     T     L:+1101111=111='o'
T     L
S S S S S T     T     T     S S T   S L:+1110010=114='r'
T     L
S S S S S T     T     S T     T     S S L:+1101100=108='l'
T     L
S S S S S T     T     S S T   S S L=+1100100=100='d'
T     L
S S S S S T     S S S S T     L:+100001=33='!'
T     L
S S :Output_'!';_L
L
L:End_the_program
```

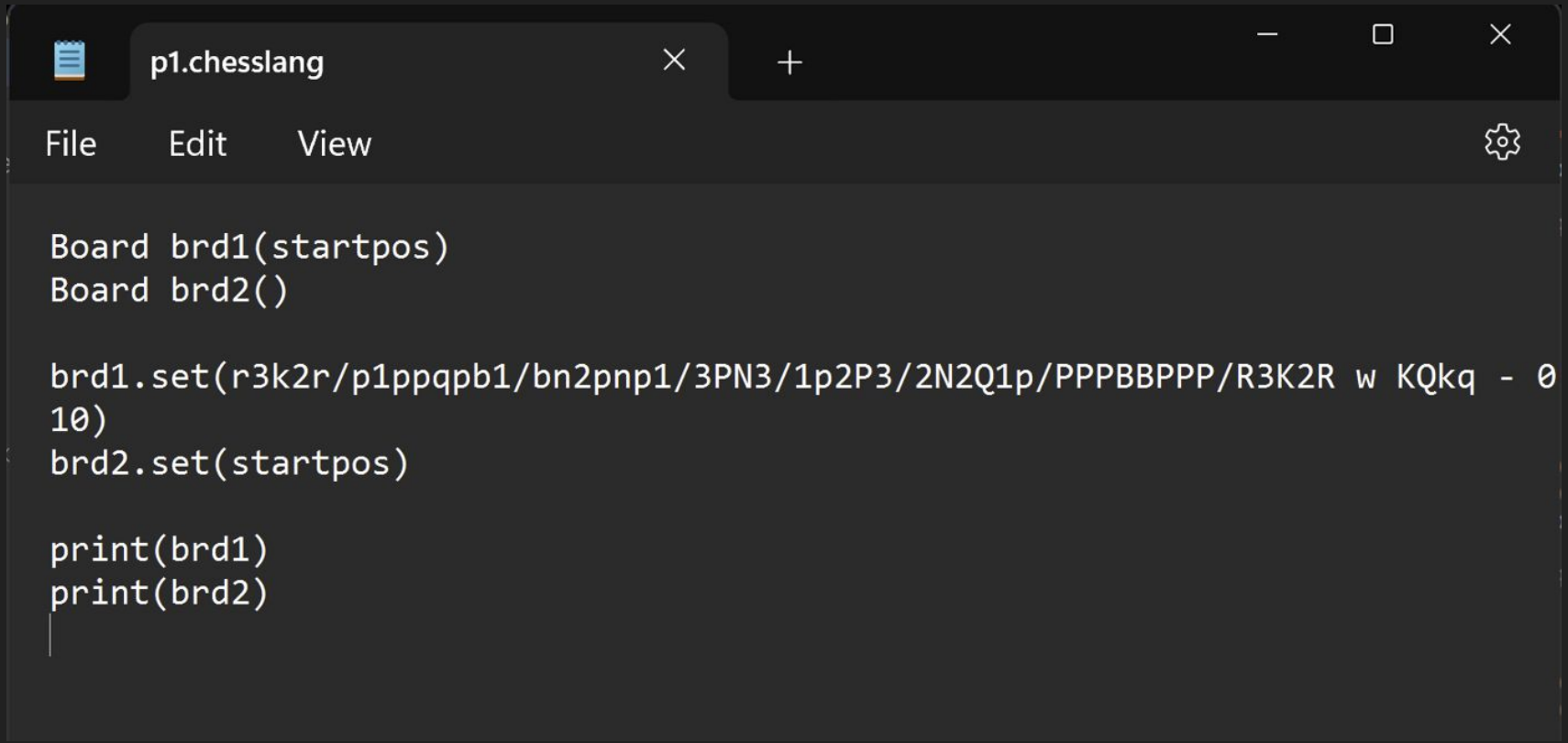
- ChessLang has elegant, easy-to-read syntax, unlike many of the most currently popular chess-programming languages.
- Its style is highly minimalistic, comparable to that of python or ruby.
- ChessLang is whitespace sensitive, and uses indentation to denote variable and function scopes.

Why I created it

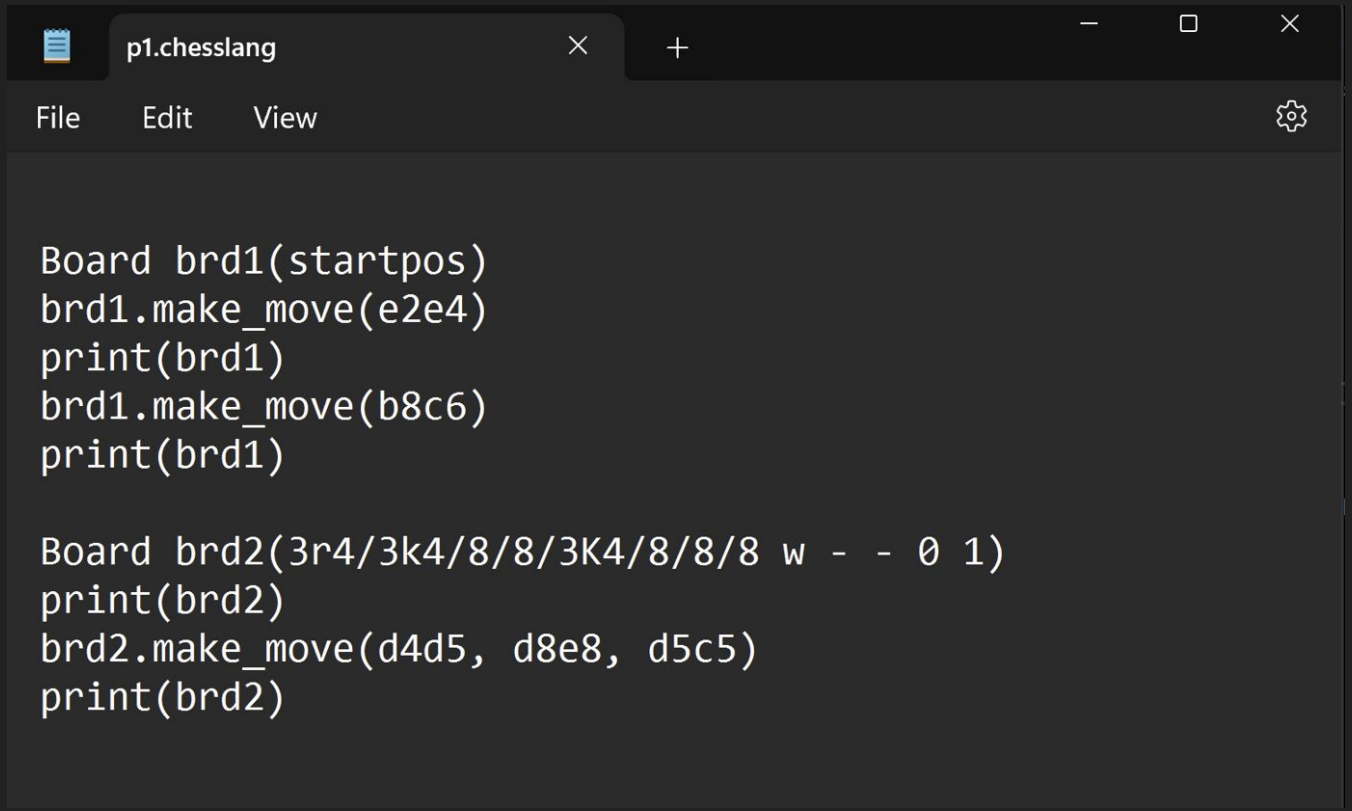
- Programming a chess engine is a great project for beginners and experienced programmers alike.
- ChessLang will serve as both a beginner and expert-friendly language for those who wish to advance their chess projects.
- Whether you're just trying to learn the basics, or want to quickly throw together a powerful engine that would give even the best human players a run for their money, ChessLang will help you achieve these goals.



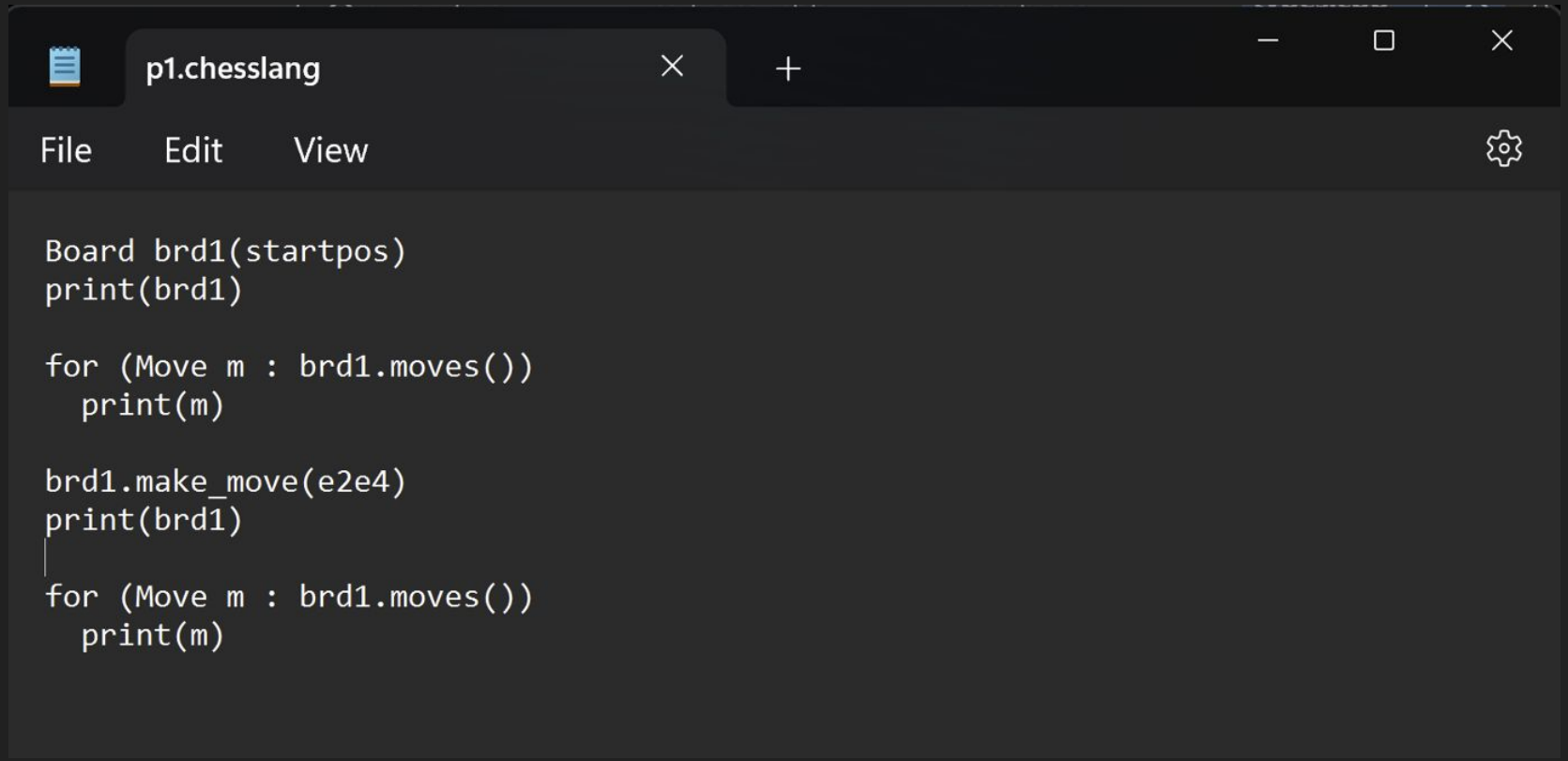
Programs:


p1.chesslang
File
Edit
View
Board brd1(startpos)
Board brd2()
brd1.set(r3k2r/p1ppqpb1/bn2pnp1/3PN3/1p2P3/2N2Q1p/PPPBBPPP/R3K2R w KQkq - 0
10)
brd2.set(startpos)
print(brd1)
print(brd2)

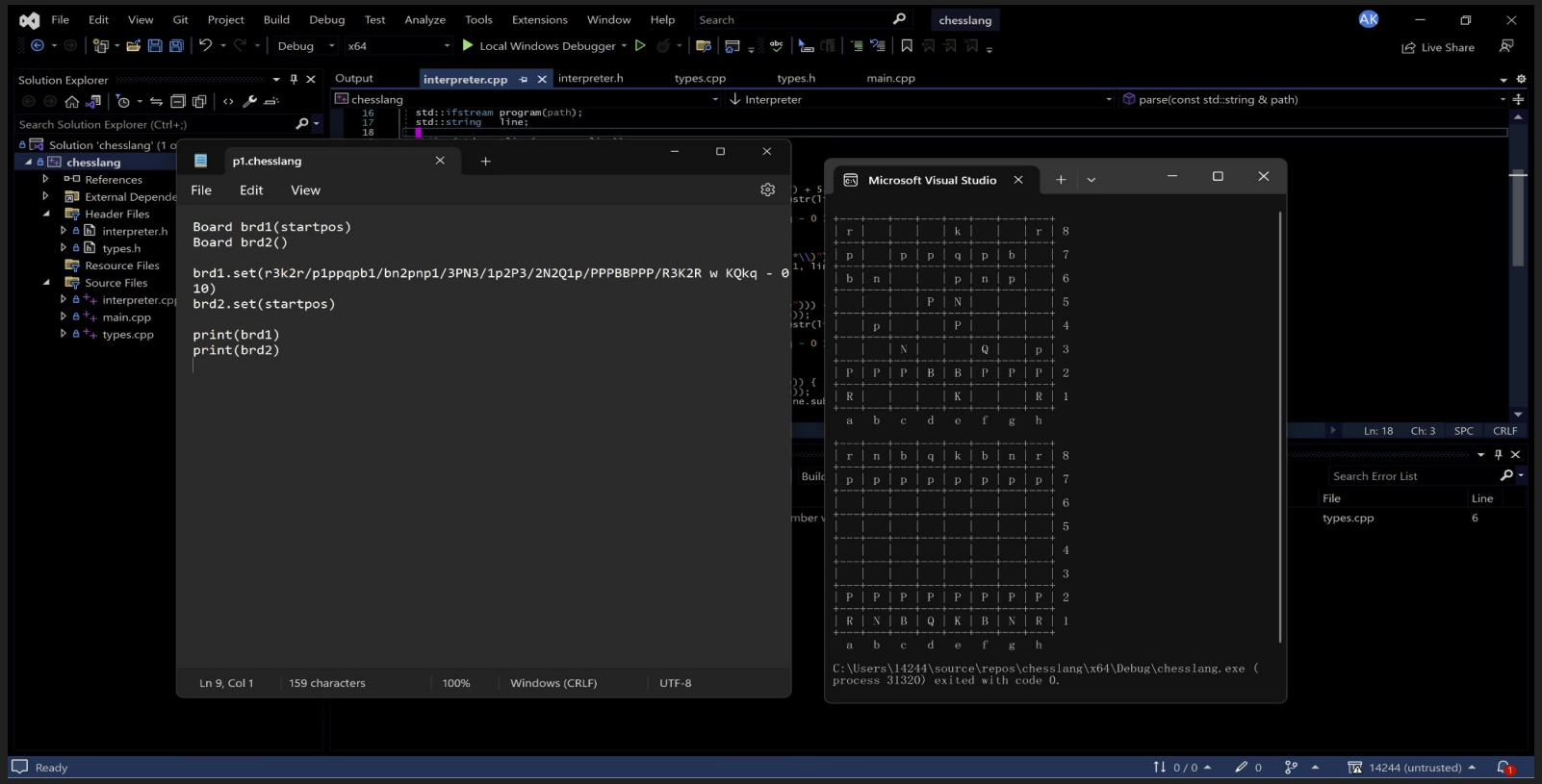
Programs:


p1.chesslang
File
Edit
View
Board brd1(startpos)
brd1.make_move(e2e4)
print(brd1)
brd1.make_move(b8c6)
print(brd1)
Board brd2(3r4/3k4/8/8/3K4/8/8/8 w - - 0 1)
print(brd2)
brd2.make_move(d4d5, d8e8, d5c5)
print(brd2)

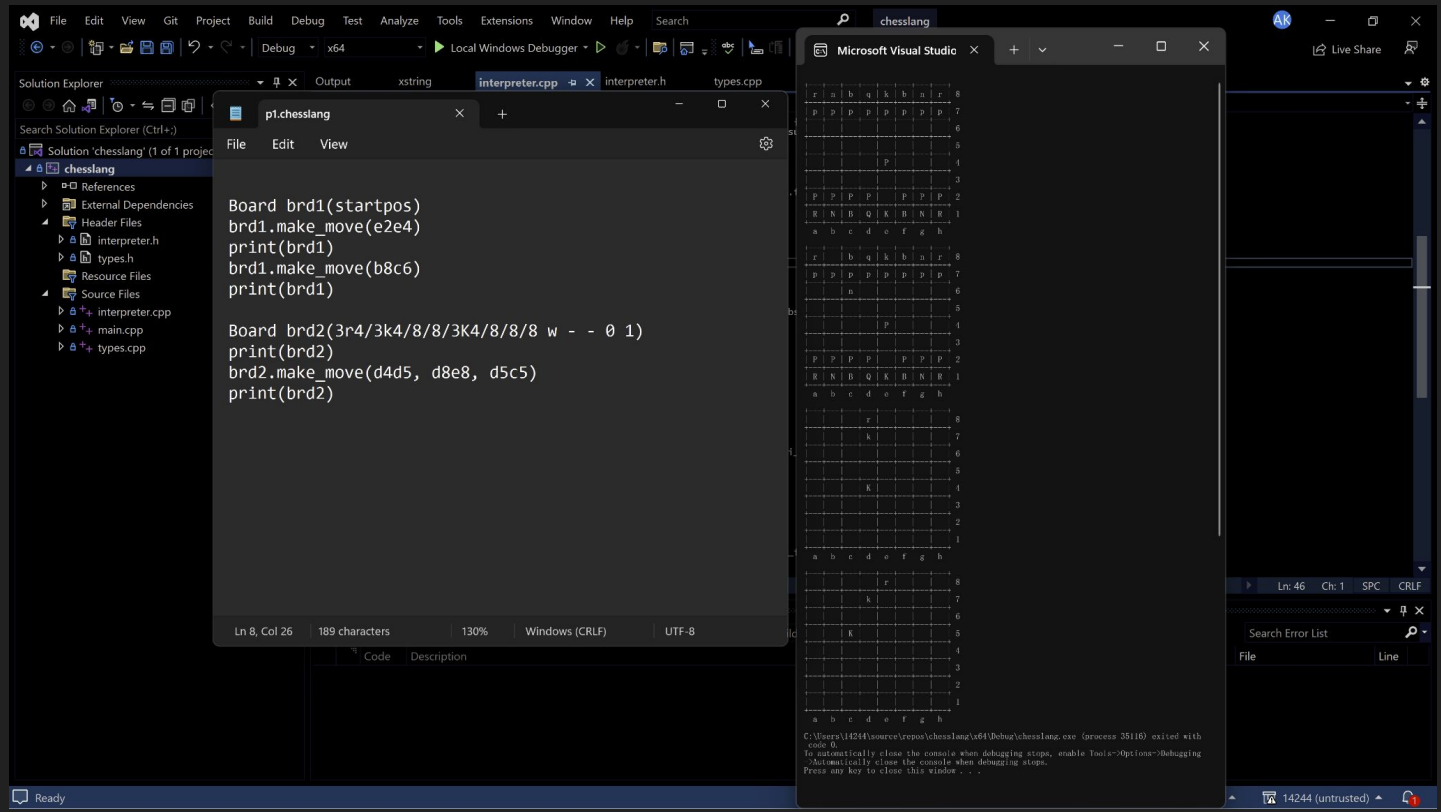
Programs:


p1.chesslang
File
Edit
View
Board brd1(startpos)
print(brd1)
for (Move m : brd1.moves())
print(m)
brd1.make_move(e2e4)
print(brd1)
for (Move m : brd1.moves())
print(m)

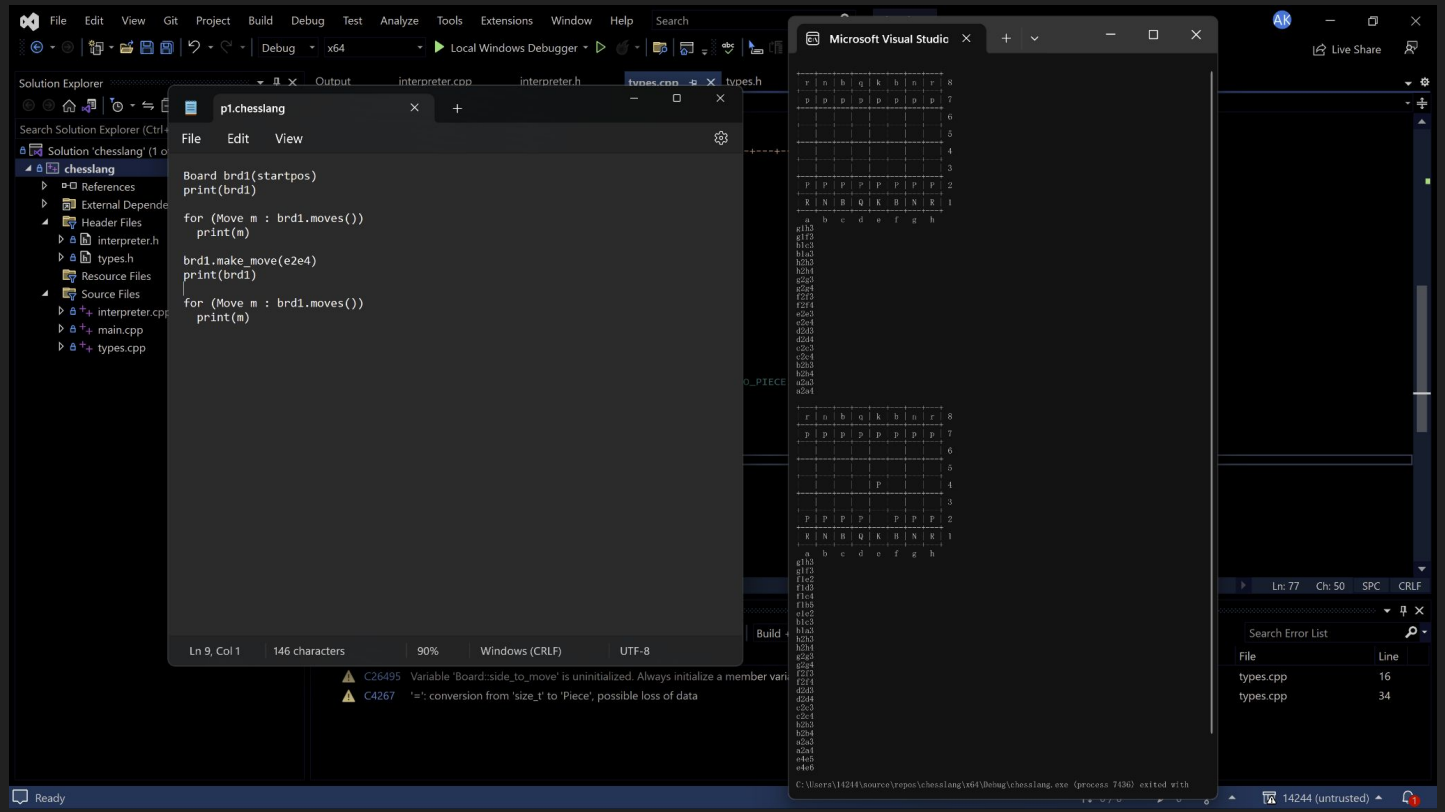
Output:


p1.chesslang
File Edit View
Board brd1(startpos)
Board brd2()
brd1.set(r3k2r/p1ppqpb1/bn2pnp1/3PN3/1p2P3/2N2Q1p/PPPBBPPP/R3K2R w KQkq - 0 10)
brd2.set(startpos)
print(brd1)
print(brd2)
Ln 9, Col 1
159 characters
100%
Windows (CRLF)
UTF-8
Microsoft Visual Studio
C:\Users\14244\source\repos\chesslang\x64\Debug\chesslang.exe (process 31320) exited with code 0.
Ready

Output:


p1.chesslang
File Edit View
Board brd1(startpos)
brd1.make_move(e2e4)
print(brd1)
brd1.make_move(b8c6)
print(brd1)
Board brd2(3r4/3k4/8/8/3K4/8/8/8 w - - 0 1)
print(brd2)
brd2.make_move(d4d5, d8e8, d5c5)
print(brd2)
Ln 8, Col 26
189 characters
130%
Windows (CRLF)
UTF-8
Microsoft Visual Studio
C:\Users\14244\source\repos\chesslang\x64\Debug\chesslang.exe (process 35116) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
Ready

Output


p1.chesslang
File Edit View
Board brd1(startpos)
print(brd1)
for (Move m : brd1.moves())
print(m)
brd1.make_move(e2e4)
print(brd1)
for (Move m : brd1.moves())
print(m)
Ln 9, Col 1
146 characters
90%
Windows (CRLF)
UTF-8
Microsoft Visual Studio
Live Share
Solution Explorer
chesslang
References
Header Files
interpreter.h
types.h
Resource Files
Source Files
interpreter.cpp
main.cpp
types.cpp
Search Error List
File
Line
types.cpp
16
types.cpp
34
Ready