

```
rd *, char *, int *)  
movecount
```

```
title
```

```
recursion
```

```
iyon açıp kapanırsa stack temiz kalır
```

```
board *brdp, char *previous_move, int *movecount){  
NULL));
```

```
p);
```

```
brdp))
```

```
t(brdp);
```

```
(brdp, previous_move);
```

```
t)++;
```

```
works\n");
```

```
rint(brdp);
```

```
h(brdp, previous_move, movecount);
```

```
ard *brdp, char *repeat){ ...
```

```
210104004041 — test ◀ make — 80x24  
2. Finish the game with PC  
3. Show the best score  
4. Exit  
> 2  
  
1 2 3  
4 5 6  
7 8 _  
  
Computer made 103469 moves  
This was the first board:  
  
3 _ 4  
7 8 6  
2 1 5  
  
Welcome to the 8-Puzzle Game!  
  
Please select an option:  
1. Play game as a user  
2. Finish the game with PC  
3. Show the best score  
4. Exit  
> █
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ard *brdp, char *repeat){ ...
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210104004041 — test ◀ make — 80x24  
2. Finish the game with PC  
3. Show the best score  
4. Exit  
> 2  
  
1 2 3  
4 5 6  
7 8 _  
  
Computer made 160424 moves  
This was the first board:  
  
_ 2 5  
6 3 7  
8 1 4  
  
Welcome to the 8-Puzzle Game!  
  
Please select an option:  
1. Play game as a user  
2. Finish the game with PC  
3. Show the best score  
4. Exit  
> █
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ard *brdp, char *repeat){ ...
```

```
210104004041 — test ◀ make — 80x24  
2. Finish the game with PC  
3. Show the best score  
4. Exit  
> 2  
  
1 2 3  
4 5 6  
7 8 _  
  
Computer made 358999 moves  
This was the first board:  
  
2 6 3  
_ 7 1  
8 5 4  
  
Welcome to the 8-Puzzle Game!  
  
Please select an option:  
1. Play game as a user  
2. Finish the game with PC  
3. Show the best score  
4. Exit  
> █
```

```
rd *, char *, int *)
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```
s(){ ...
```

```
. moves possible
```

```
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```

```
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```
iyon açıp kapanırsa staack temiz kalır
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NULL));
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brdp))
```

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t(brdp);
```

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(brdp, previous_move);
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t)++;
```

```
works\n");
```

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```

```
h(brdp, previous_move, movecount
```

```
ard *brdp, char *repeat){ ...
```

```
210104004041 — test ◀ make — 87x29

Welcome to the 8-Puzzle Game!

Please select an option:
1. Play game as a user
2. Finish the game with PC
3. Show the best score
4. Exit
> 2

1 2 3
4 5 6
7 8 _

Computer made 13143 moves
This was the first board:

5 _ 7
3 8 4
6 2 1

Welcome to the 8-Puzzle Game!

Please select an option:
1. Play game as a user
2. Finish the game with PC
3. Show the best score
4. Exit
> █
```

```
rd *, char *, int *)
```

```
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h(brdp, previous_move, movecount
```

```
ard *brdp, char *repeat){ ...
```

```
210104004041 — test ◀ make — 87x29

Welcome to the 8-Puzzle Game!

Please select an option:
1. Play game as a user
2. Finish the game with PC
3. Show the best score
4. Exit
> 2

1 2 3
4 5 6
7 8 _

Computer made 654807 moves
This was the first board:

6 2 1
_ 5 8
7 4 3

Welcome to the 8-Puzzle Game!

Please select an option:
1. Play game as a user
2. Finish the game with PC
3. Show the best score
4. Exit
> █
```


C util.c

≡ board_saves.txt ×

≡ board_saves.txt

```
900412  1 3 5
900413  4 2 _
900414  7 8 6
900415  *****
900416  *****
900417  1 3 _
900418  4 2 5
900419  7 8 6
900420  *****
900421  *****
900422  1 _ 3
900423  4 2 5
900424  7 8 6
900425  *****
900426  *****
900427  1 2 3
900428  4 _ 5
900429  7 8 6
900430  *****
900431  *****
900432  1 2 3
900433  4 5 _
900434  7 8 6
900435  *****
900436  *****
900437  1 2 3
900438  4 5 6
900439  7 8 _
900440  *****
```

210104004041 — test ◀ make — 87x29

=====

Welcome to the 8-Puzzle Game!

Please select an option:

1. Play game as a user
 2. Finish the game with PC
 3. Show the best score
 4. Exit
- > 2

1 2 3

4 5 6

7 8 _

Computer made 180087 moves

This was the first board:

8 2 3

_ 6 1

4 5 7

Welcome to the 8-Puzzle Game!

Please select an option:

1. Play game as a user
 2. Finish the game with PC
 3. Show the best score
 4. Exit
- > █

C util.c > computer_plays()

```
285
286     //board_print(board_p);
287     char first_char='B';//nece
288     int move=0;
289
290
291     clock_t start_t,end_t;
292
293     start_t=clock();
294     auto_finish(board_p,&first
295     end_t=clock();
296
297     printf("gecen sure: %lf\n"
298
299
300
301     printf("Computer made %d moves\n",move);
302     printf("This was the first board:\n");
303     board_print(&initialboard);
304
305 }
306 //first find legal moves possible
307 //randomly do one
308 //if bittiyse printle
309 //if bitmediyse recursion
310 //yandan bir fonksiyon açıp kapanırsa staack temiz kalır
311 void auto_finish(board *brdp,char *previous_move,int *movecount){
312     //srand(time(NULL));
313
```

```
3. Show the best score
4. Exit
> 2
```

```
1 2 3
4 5 6
7 8 _
```

```
gecen sure: 12.814390
Computer made 851982 moves
This was the first board:
```

```
3 8 4
5 1 7
_ 2 6
```

Welcome to the 8-Puzzle Game!

Please select an option:

```
1. Play game as a user
2. Finish the game with PC
3. Show the best score
4. Exit
> █
```