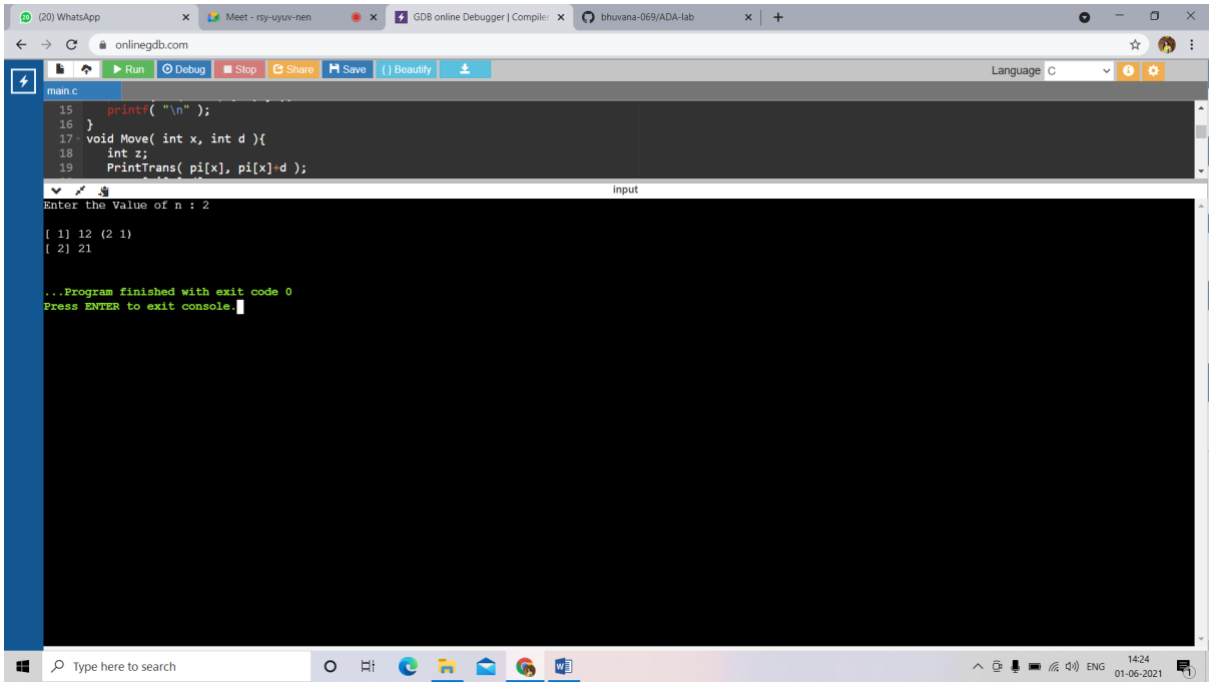
```
#include <stdio.h>
#include <conio.h>
int NN, i, count=0;
int p[100], pi[100];
int dir[100];
void PrintPerm(){
  int i;
  count = count + 1;
  printf( "[%2d] ", count );
  for (i=1; i <= NN; ++i)
    printf( "%d", p[i] );
}
void PrintTrans( int x, int y ){
  printf( " (%d %d)", x, y );
  printf( "\n" );
}
void Move( int x, int d ){
  int z;
  PrintTrans( pi[x], pi[x]+d );
  z = p[pi[x]+d];
  p[pi[x]] = z;
  p[pi[x]+d] = x;
  pi[z] = pi[x];
  pi[x] = pi[x]+d;
}
void Perm ( int n ){
  int i;
  if (n > NN)
    PrintPerm();
  else{
    Perm( n+1 );
```

```
    for (i=1; i<=n-1; ++i){
      Move( n, dir[n] );
      Perm( n+1 );
    }
    dir[n] = -dir[n];
  }
}
int main(){
  printf( "Enter the Value of n : " );
  scanf( "%d", &NN );
  printf( "\n" );
  for (i=1; i<=NN; ++i){
    dir[i] = -1; p[i] = i;
    pi[i] = i;
  }
  Perm ( 1 );
  printf( "\n" );
  return 0;
}
```

OUTPUT :


onlinegdb.com
Run
Debug
Stop
Share
Save
{ } Beautify
Language C
main.c
15 printf("\n");
16 }
17 void Move(int x, int d){
18 int z;
19 PrintTrans(pi[x], pi[x]+d);
input
Enter the Value of n : 2
[1] 12 (2 1)
[2] 21
...Program finished with exit code 0
Press ENTER to exit console.
Type here to search
ENG
14:24
01-06-2021