

PreLab Part 1

```
1. Int array[26][26];
for (i=0;i<26;i++) {
    for (j=0;j<26;j++) {
        array[i][j]=0
    }
}
OpenFile
fscanf(input,char):
char[0]-'A'
char[1]-'B'
Array[char[0]][char[1]]
```

2. A->B->C->F->Z

A->B->C->Z

A->B->D->E FAIL

3. 1->2->4->5->4->2->1

PRELAB PART2

Stack_create :
stack(malloc(sizeof(stack)))

Stack_delete:
free(stack)

Stack_empty:
Return s->top=0

Stack_size:
Return s->top

Stack_push:
If Stack == capacity:
Allocate more

s->items[s->top]=item
s->top+=1

Stack_pop:
s->top-=1
item=s->items[s->top]

```
Stack_print:
item+'A'
s->top=0
while(s->items[s->top] !=0:
Print
top++
```

PSEUDOCODE:

```
#include stack.c and stack .h
```

```
Int main {
```

```
Array[26][26]
```

```
For i =0;i<26 i++ {
```

```
    For j=0;j<26;j++ {
```

```
        array[i][j]=0
```

```
Create Stack
```

```
while(argv) !=EOF {
```

```
Case i:
```

```
fopen(file)
```

```
Fscanf (input)
```

```
input[0]-'A' and also input1
```

```
Array[input0][input1]
```

```
Case: d
```

```
Read input
```

```
stack_push(0)
```

```
Recursion()
```

```
Case u:
```

```
Recursion
```

```
Case m:
```

```
Print array
```

```
If (case u):    print [i][j] and [j][i]
```

```
RECURSION(int y):
```

```
If y==25 {
```

```
    stack_push(25)
```

```
    Stack_print
```

```
    Get # paths and shortest length
```

```
    Stack_pop
```

Return:

For possible:

```
    If ==1 and not visited:  
        Stack_push(current)  
        visited[i]=1  
        RECURSION(next)  
        POP  
        visited=0:  
return
```