

C PROGRAM:

```
#include<stdlib.h>
#include<string.h>
#include<stdio.h>
```

```
char prod[3][10]={"A->aBa", "B->bB", "B->@"}; //Note - @ is considered to be
the empty string.
char input[10], stack[25];
```

```
int top=-1;
int j=0,k,l;
```

```
//Push function for the stack
void push(char item){
    stack[++top]=item;
}
```

```
//Pop function for the stack
void pop(){
    top=top-1;
}
```

```
//Function to display the stack
void display(){
    int j;
    for(j=top;j>=0;j--)
        printf("%c",stack[j]);
}
```

```
void stackpush(char p){
    if(p=='A'){
        pop();
        for(j=strlen(prod[0])-1; j>=3; j--)
            push(prod[0][j]);
    } else {
        pop();
        for(j=strlen(prod[1])-1; j>=3; j--)
            push(prod[1][j]);
    }
}
```

```
void main(){
    char c;
```