```
#include <stdio.h>
#define MAX 10
int stack[MAX];
int top == -1;
void push(int element)
{
   if(top ==MAX - 1 )
   {
      printf("Stack Overflow \n");
   }
   else
   {
      stack[top++]= element;
      printf("%d pushed to stack \n", element);
   }
}
void pop(int value)
{
   if(top == -1)
   {
      printf("Stack Underflow");
   }
   else
   {
      stack(top--)= value;
      printf("%d popped from stack \n", value);
   }
```

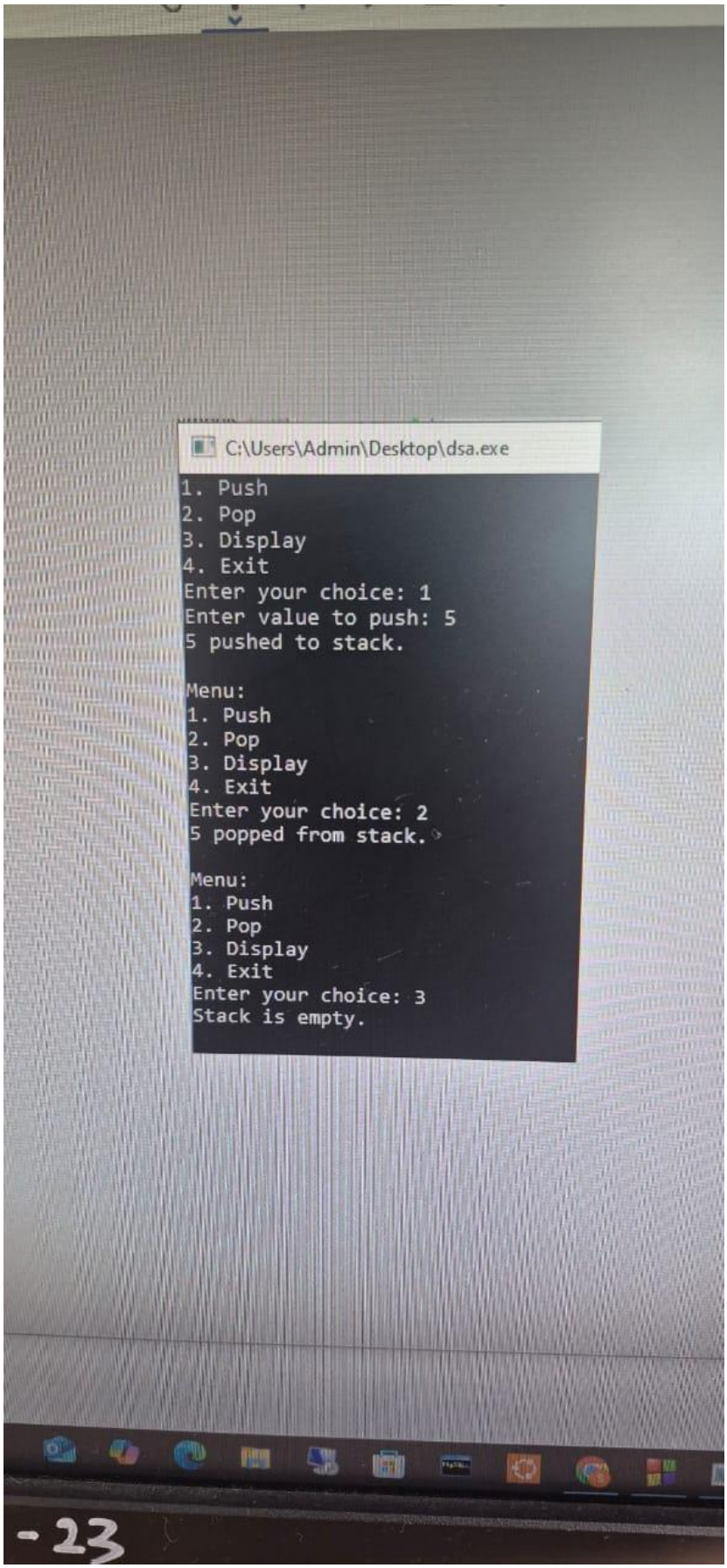
```
}
void display()
{
   if (top == -1)
   {
      printf("Stack is empty \n");
   }
   else
   {
      printf("stack elements(top to bottom)");
      for(int i = top;i >= 0; i--)
      {
         printf("%d",stack[i]);
      }
      printf("\n");
   }
}

int main()
{
   int element,option;
   while(1)

   {
      printf(****MAIN MENU***);
      printf("\n 1.push");
      printf("\n 2.pop");
```

```
        printf("\n 3.Display");
        printf(***EXIT***);
        printf("Enter your Choice:");
        scanf("%d",&option);
        switch(option)
        {
          case 1:
               printf("Enter value to push: ");
               scanf("%d",&element);
               push(element);
               break;
          case 2:
               pop();
               break;
          case 3:
               display();
               break;
          case 4:
                printf("Exiting program \n");
                return 0;
          default:
        printf("Invalid Option \n")
    }
}
```

OUTPUT:


C:\Users\Admin\Desktop\dsa.exe
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 1
Enter value to push: 5
5 pushed to stack.
Menu:
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 2
5 popped from stack.
Menu:
1. Push
2. Pop
3. Display
4. Exit
Enter your choice: 3
Stack is empty.
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