```c
#include<stdio.h>
#include<stdlib.h>
typedef struct
{
    int value;
    int min;

} StackNode;

typedef struct
{
    StackNode *array;
    int capacity;
    int top;
}MinStack;

MinStack* minStackCreate()
{
    MinStack* stack=(MinStack*)malloc(sizeof(MinStack));
    stack->capacity = 10;
    stack->array = (StackNode*)malloc(stack->capacity * sizeof(StackNode));
    stack->top = -1;
    return stack;

}

```

```
27  void minStackPush(MinStack* obj, int val)
28  {
29      if (obj->top == obj->capacity - 1)
30      {
31          obj->capacity *= 2;
32          obj->array = (StackNode*)realloc(obj->array, obj->capacity * sizeof(StackNode));
33      }
34      StackNode newNode;
35      newNode.value = val;
36      newNode.min = (obj->top == -1) ? val : (val < obj->array[obj->top].min) ? val : obj->array[obj->top].min;
37      obj->array[++(obj->top)] = newNode;
38  }
39
40  void minStackPop(MinStack* obj)
41  {
42      if (obj->top != -1)
43      {
44          obj->top--;
45      }
46
47  }
48
49  int minStackTop(MinStack* obj)
50  {
51      if (obj->top != -1)
52      {
53          return obj->array[obj->top].value;
54      }
```

```
55      return -1;
56
57  }
58
59  int minStackGetMin(MinStack* obj)
60  {
61      if (obj->top != -1)
62      {
63          return obj->array[obj->top].min;
64      }
65      return -1;
66
67  }
68
69  void minStackFree(MinStack* obj)
70  {
71      free(obj->array);
72      free(obj);
73  }
```