Compile the following program, use a debugger and answer the following questions:  
#include<stdio.h>  
void main()  
{  
int a[12], b, c=100,i;  
int \*m;  
for(i=0;i<12;i++)  
{  
a[i+1]=i+1;  
b=a[i]+c;  
}  
m=(int \*) malloc(4);  
\*m=90;  
printf(“%d”, b);  
}

What is the value stored in the register r5 when i=10.

How many times (values) the stack is accessed before the for loop execution starts?

Find out if heap memory is used in this program

How can you avoid any unwanted memory access in this program?

Link for compilation:

<https://gainful-food-eea.notion.site/ARM-GNU-TOOLCHAIN-186603e2ea4080fbaaacca5c8698af47?pvs=4>