LAB11

Q1.

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

int main(int argc, char **argv)
{
int a, b,c;
a = atoi(argv[1]);
b = atoi(argv[2]);
for(int i=1;i<=b;i++)
{
c = a*i;
printf("%d * %d = %d\n",a,i,c);
}
return 0;
}
```

```
Reading symbols from ./lab11...
(gdb) break 9
Breakpoint 1 at 0x11a8: file lab11.c, line 9.
(gdb) run 2 7
Starting program: /home/tahak007/Desktop/lab11 2 7
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/lib/x86_64-linux-gnu/libthread_db.so.1".

Breakpoint 1, main (argc=3, argv=0x7fffffffe018) at lab11.c:9
9       for(int i=1;i<=b;i++)
(gdb) print c
$1 = 21845
(gdb)
```

```
$1 = 21845
(gdb) continue
Continuing.
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
[Inferior 1 (process 4888) exited normally]
(gdb) exit
tahak007@tahak007-virtual-machine:~/Desktop$
```

Q2.

```c
#include <stdio.h>

int myArray[5];

void printArray(int arr[], int size) {
    printf("Array elements: ");
    for (int i = 0; i < size; i++) {
        printf("%d ", arr[i]);
    }
    printf("\n");
}

int main() {
    const int size = 5;

    for (int i = 0; i < size; i++) {
        myArray[i] = (i + 1) * 5;  // For example, initializing with multiples of 5
    }

    printArray(myArray, size);

    int c;

    for (int i = 0; i < size; i++) {
        c = myArray[2];
        myArray[2] += 5 * i;
        myArray[3] -= 2 * i;
    }

    printArray(myArray, size);

    return 0;
}
```

```
(gdb) run
Starting program: /home/tahak007/Desktop/test
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/lib/x86_64-linux-gnu/libthread_db.so.1".

Hardware watchpoint 1: myArray[2]

Old value = 0
New value = 15
main () at array_operations.c:16
16          for (int i = 0; i < size; i++) {
(gdb) continue
Continuing.
Array elements: 5 10 15 20 25

Hardware watchpoint 1: myArray[2]

Old value = 15
New value = 20
main () at array_operations.c:27
```

```
main () at array_operations.c:27
27              myArray[3] -= 2 * i;
(gdb) print myArray[2]
$1 = 20
(gdb) continue
Continuing.

Hardware watchpoint 1: myArray[2]

Old value = 20
New value = 30
main () at array_operations.c:27
27              myArray[3] -= 2 * i;
(gdb) continue
Continuing.

Hardware watchpoint 1: myArray[2]

Old value = 30
New value = 45
main () at array_operations.c:27
27              myArray[3] -= 2 * i;
(gdb) continue
Continuing.
```

```
Hardware watchpoint 1: myArray[2]

Old value = 45
New value = 65
main () at array_operations.c:27
27              myArray[3] -= 2 * i;
(gdb) continue
Continuing.
Array elements: 5 10 65 0 25
[Inferior 1 (process 5522) exited normally]
(gdb) exit
tahak007@tahak007-virtual-machine:~/Desktop$
```