Ex. No20

Integer Table Creation at Runtime

Aim:

To write a C program to create a table of integers by specifying size at runtime.

Algorithm:

1) Start the program.
2) Declare an integer pointer variables “table”.
3) Declare two integer variable “i”, “size”.
4) Get the “size” value of the table to create.
5) Allocate the size for the variable “table” using “malloc” function.
6) Check if “table” equal to “NULL” then
    a). Display “No Space Available”
    b). Exit from the program.
7) For “i” equal to 0 upto “size” do the following
    a). Get input for the “table[i]”.
8) For “i” equal to 0 upto “size” do the following
    a). Display the value in “table[i]”.
9)Stop the program

Program:

```
#include<stdio.h>
#include<conio.h>
#include<alloc.h>

void main()
{
 int *table;
 int i, size;
 clrscr();
 printf("\nEnter Table Size: ");
 scanf("%d",&size);
 printf("\n");
 table = (int*)malloc(size *sizeof(int));
 if(table == NULL)
 {
  printf("No space available \n");
  exit(1);
 }
 printf("\nEnter table values\n");
 for (i=0; i<size; i++)
 {
  scanf("%d",&table[i]);
 }
 printf("\nValues Stored in Table are\n");
 for (i = 0; i<size; i++)
 {
  printf("%d\n",table[i]);
 }
getch();
}
```

Result:

Thus the C program to create a table of integers by specifying size at runtime is executed successfully.