EXPERIMENT 3

I. Write a program to generate test cases using Worst Case approach.

SOURCE CODE

```
#include <stdio.h>
#include <conio.h>
int main() {
int n, a, b, c, k, id, i=0, j=0;
printf("Number of variables: ");
scanf("%d",&n);
int arr[20][5];
for (a=0;a<n;a++) {
	printf("Var%d",a+1);
	for (b=0;b<2;b++) {
		if(b==0) {
			printf("\tMinimum Value: ");
			scanf("%d",&arr[a][0]);
		}
		else {
			printf("\tMaximum Value: ");
			scanf("%d",&arr[a][4]);
		}
	}
	arr[a][1] = arr[a][0]+1;
	arr[a][2] = (arr[a][0]+arr[a][4])/2;
	arr[a][3] = arr[a][4]-1;
}

id = 1;
printf("T_id\t");
for (a=0;a<3;a++) {
	printf("Var%d\t",a+1);
}
printf("\n");
for (a=0;a<5;a++) {
	for (b=0;b<5;b++) {
		for (k=0;k<5;k++) {
			printf("%d.\t%d\t%d\t%d\n",id++,arr[0][a],arr[1][b],arr[2][k]);
		}
	}
}
getch();
return 0;
}
```

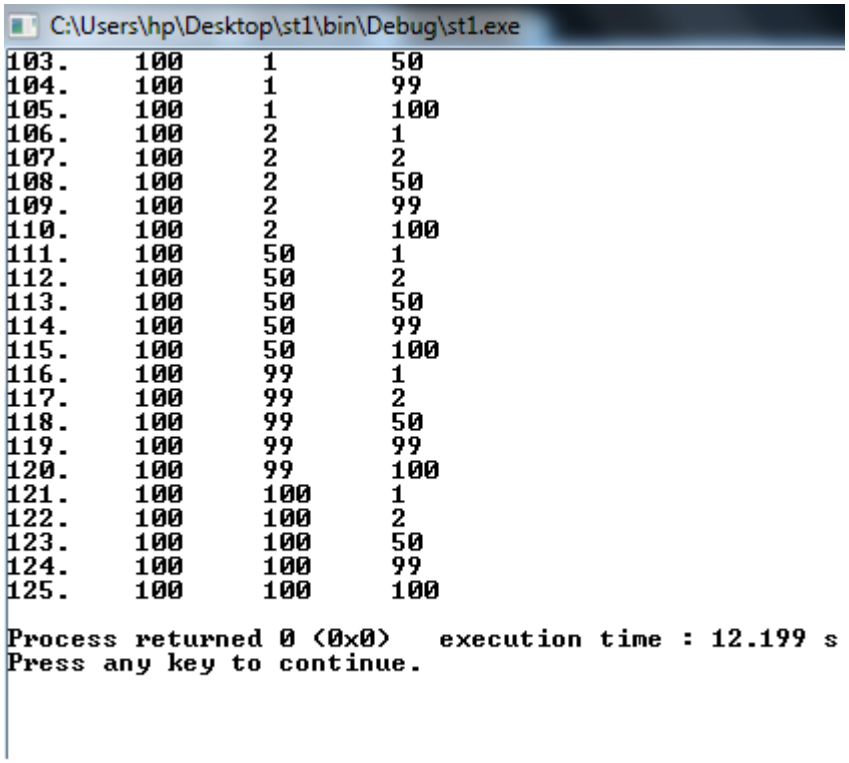
OUTPUT:

C:\Users\hp\Desktop\st1\bin\Debug\st1.exe

```
Number of variables: 5
Var1    Minimum Value: 1
        Maximum Value: 100
Var2    Minimum Value: 1
        Maximum Value: 100
Var3    Minimum Value: 1
        Maximum Value: 100
Var4    Minimum Value: 1
        Maximum Value: 100
Var5    Minimum Value: 1
        Maximum Value: 100
T_id    Var1    Var2    Var3
1.      1       1       1
2.      1       1       2
3.      1       1       50
4.      1       1       99
5.      1       1       100
6.      1       2       1
7.      1       2       2
8.      1       2       50
9.      1       2       99
10.     1       2       100
11.     1       50      1
12.     1       50      2
13.     1       50      50
14.     1       50      99
15.     1       50      100
16.     1       99      1
17.     1       99      2
18.     1       99      50
19.     1       99      99
20.     1       99      100
21.     1       100     1
22.     1       100     2
23.     1       100     50
24.     1       100     99
25.     1       100     100
26.     2       1       1
27.     2       1       2
28.     2       1       50
29.     2       1       99
30.     2       1       100
31.     2       2       1
32.     2       2       2
33.     2       2       50
34.     2       2       99
35.     2       2       100
36.     2       50      1
37.     2       50      2
38.     2       50      50
39.     2       50      99
40.     2       50      100
41.     2       99      1
42.     2       99      2
43.     2       99      50
44.     2       99      99
45.     2       99      100
```

C:\Users\hp\Desktop\st1\bin\Debug\st1.exe

```
Number of variables: 5
Var1    Minimum Value: 1
        Maximum Value: 100
Var2    Minimum Value: 1
        Maximum Value: 100
Var3    Minimum Value: 1
        Maximum Value: 100
Var4    Minimum Value: 1
        Maximum Value: 100
Var5    Minimum Value: 1
        Maximum Value: 100
T_id    Var1    Var2    Var3
1.      1       1       1
2.      1       1       2
3.      1       1       50
4.      1       1       99
5.      1       1       100
6.      1       2       1
7.      1       2       2
8.      1       2       50
9.      1       2       99
10.     1       2       100
11.     1       50      1
12.     1       50      2
13.     1       50      50
14.     1       50      99
15.     1       50      100
16.     1       99      1
17.     1       99      2
18.     1       99      50
19.     1       99      99
20.     1       99      100
21.     1       100     1
22.     1       100     2
23.     1       100     50
24.     1       100     99
25.     1       100     100
26.     2       1       1
27.     2       1       2
28.     2       1       50
29.     2       1       99
30.     2       1       100
31.     2       2       1
32.     2       2       2
33.     2       2       50
34.     2       2       99
35.     2       2       100
36.     2       50      1
37.     2       50      2
38.     2       50      50
39.     2       50      99
40.     2       50      100
41.     2       99      1
42.     2       99      2
43.     2       99      50
44.     2       99      99
45.     2       99      100
```


C:\Users\hp\Desktop\st1\bin\Debug\st1.exe
103. 100 1 50
104. 100 1 99
105. 100 1 100
106. 100 2 1
107. 100 2 2
108. 100 2 50
109. 100 2 99
110. 100 2 100
111. 100 50 1
112. 100 50 2
113. 100 50 50
114. 100 50 99
115. 100 50 100
116. 100 99 1
117. 100 99 2
118. 100 99 50
119. 100 99 99
120. 100 99 100
121. 100 100 1
122. 100 100 2
123. 100 100 50
124. 100 100 99
125. 100 100 100
Process returned 0 (0x0) execution time : 12.199 s
Press any key to continue.