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LAB 11

Implement the above code and paste the screen shot of the output.

CODE:

```
#include <stdio.h>
#include <stdlib.h>  // for exit()


int main() {
   int base[20], limit[20], n, i, pa, segment, offset;


   printf("Program for Segmentation\n");


   printf("Enter the number of segments: ");
   scanf("%d", &n);


   printf("Enter the base address and limit register for each segment:\n");
   for (i = 0; i < n; i++) {
      printf("Segment %d - Base: ", i);
      scanf("%d", &base[i]);
      printf("Segment %d - Limit: ", i);
      scanf("%d", &limit[i]);
   }


   printf("Enter the segment number: ");
   scanf("%d", &segment);


   printf("Enter the offset: ");
   scanf("%d", &offset);
```

```
    if (segment >= n) {
        printf("Invalid segment number.\n");
    } else if (offset >= limit[segment]) {
        printf("Offset exceeds the limit of the segment.\n");
    } else {
        pa = base[segment] + offset;
        printf("\n\tSegment\tBase\tOffset\tPhysical Address\n");
        printf("\t%d\t%d\t%d\t%d\n", segment, base[segment], offset, pa);
    }

    return 0;
}
```

OUTPUT: