Name: LAIBA NADEEM
Roll No. : DT-22028

Lab 11: MEMORY MANAGEMENT TECHNIQUES

CODE:

```
#include <stdio.h>

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


int main() {

   int base[20], limit[20], n, i, pa, segment_no, offset;


   printf("\nProgram for Segmentation");

   printf("\nEnter the number of segments: ");

   scanf("%d", &n);


   printf("Enter the base address and limit for each segment:\n");

   for(i = 0; i < n; i++) {

      printf("Segment %d:\n", i);

      printf(" Base: ");

      scanf("%d", &base[i]);

      printf(" Limit: ");

      scanf("%d", &limit[i]);

   }


   printf("\nEnter the segment number: ");

   scanf("%d", &segment_no);
```

```
    if(segment_no < 0 || segment_no >= n) {
        printf("Invalid segment number!\n");
        return 1;
    }

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

    if(offset < limit[segment_no]) {
        pa = base[segment_no] + offset;
        printf("\n\tSegment No.\tBase Address\tPhysical Address\n");
        printf("\t%d\t\t%d\t\t%d\n", segment_no, base[segment_no], pa);
    } else {
        printf("Offset exceeds segment limit.\n");
    }

    return 0;
}
```

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OUTPUT: