Question 12

Write a program to implement the First In First Out(FIFO) page replacement algorithm. Program should takes input reference string and total no. of pages that can accommodate in memory. Output contains detail about each page fault details and calculate average page fault.

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Code :

```c
#include<stdio.h>
int main()
{
int i,j,n,frame_no,k,avail,count=0;
printf("\n ENTER THE NUMBER OF PAGES:\n");
scanf("%d",&n);
int page[n];

printf("\n ENTER THE PAGE NUMBER :\n");
for(i=1;i<=n;i++)
scanf("%d",&page[i]);

printf("\n ENTER THE NUMBER OF FRAMES :");
scanf("%d",&frame_no);

int frame[frame_no];
for(i=0;i<frame_no;i++)
    frame[i]= -1;

j=0;

printf("ref string\t page frames\n");

for(i=1;i<=n;i++)
{
    printf("%d\t\t",page[i]);
    avail=0;
    for(k=0;k<frame_no;k++)
    if(frame[k]==page[i])
        avail=1;
    if (avail==0)
    {
        frame[j]=page[i];
        j=(j+1)%frame_no;
        count++;
        for(k=0;k<frame_no;k++)
        printf("%d\t",frame[k]);
    }
    printf("\n");
}
printf("Page Fault Is %d",count);
```

```
return 0;
}
```

Output :

```
Enter the number of pages :
6
Enter the page number :
7
3
2
5
1
0
Enter the number of frames :
3
ref string       page frames
7               7       -1      -1
3               7       3       -1
2               7       3       2
5               5       3       2
1               5       1       2
0               5       1       0
Page Fault Is 6
--------------------------------
```