

# OS LAB MANUAL (CS23431)

Roll No:230701234

EX.NO:11(A)

## FIFO PAGE REPLACEMENT

Aim: To find out the number of page faults that occur using First-in First-out (FIFO) page replacement technique

Program:

```
from collections import deque
```

```
ref_str = []
```

```
frames = deque()
```

```
page_faults = 0
```

```
n = int(input("Enter the size of reference string: "))
```

```
for i in range(n):
```

```
    val = int(input(f"Enter [{i + 1}] : "))
```

```
    ref_str.append(val)
```

```
frame_size = int(input("Enter page frame size : "))
```

```
print()
```

```
for page in ref_str:
```

```
    if page not in frames:
```

```
        if len(frames) < frame_size:
```

```
            frames.append(page)
```

```
        else:
```

```
            frames.popleft()
```

```

        frames.append(page)

    page_faults += 1

    print(f"{page} ->", end=' ')

    for f in frames:

        print(f, end=' ')

    for _ in range(frame_size - len(frames)):

        print("-", end=' ')

    print()

else:

    print(f"{page} -> No Page Fault")

print(f"\nTotal page faults: {page_faults}")

```

Input:

```

pranav@Pranav:~$ vi elevena.py
pranav@Pranav:~$ python3 elevena.py
Enter the size of reference string: 4
Enter [1] : 6
Enter [2] : 8
Enter [3] : 7
Enter [4] : 3
Enter page frame size : 2

```

Output:

```

pranav@Pranav:~$ python3 elevena.py
Enter the size of reference string: 4
Enter [1] : 6
Enter [2] : 8
Enter [3] : 7
Enter [4] : 3
Enter page frame size : 2

6 -> 6 -
8 -> 6 8
7 -> 8 7
3 -> 7 3

```