**Least Recently Used(LRU):**

#include <iostream>

using namespace std;

int main() {

int q[20], p[50], c = 0, c1, d, f, i, j, k = 0, n, r, t, b[20], c2[20], page\_hits = 0; // Initialize page\_hits

cout << "Enter no of pages:";

cin >> n;

cout << "Enter the reference string:";

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

cin >> p[i];

cout << "Enter no of frames:";

cin >> f;

q[k] = p[k];

cout << "\n\t" << q[k] << endl;

c++;

k++;

for (i = 1; i < n; i++) {

c1 = 0;

for (j = 0; j < f; j++) {

if (p[i] != q[j])

c1++;

}

if (c1 == f) {

c++;

if (k < f) {

q[k] = p[i];

k++;

for (j = 0; j < k; j++)

cout << "\t" << q[j];

cout << endl;

} else {

for (r = 0; r < f; r++) {

c2[r] = 0;

for (j = i - 1; j >= 0; j--) {

if (q[r] != p[j])

c2[r]++;

else

break;

}

}

for (r = 0; r < f; r++)

b[r] = c2[r];

for (r = 0; r < f; r++) {

for (j = r; j < f; j++) {

if (b[r] < b[j]) {

t = b[r];

b[r] = b[j];

b[j] = t;

}

}

}

for (r = 0; r < f; r++) {

if (c2[r] == b[0])

q[r] = p[i];

cout << "\t" << q[r];

}

cout << endl;

}

} else {

page\_hits++; // Increment page hits

}

}

cout << "\nThe no of page hits is " << page\_hits << endl;

cout << "The no of page faults is " << c << endl;

return 0;

}

**Output**:

Enter no of pages:10

Enter the reference string:4 7 6 1 7 6 1 2 7 2

Enter no of frames:3

4

4 7

4 7 6

1 7 6

1 2 6

1 2 7

The no of page hits is 4

The no of page faults is 6