#include <stdio.h>

#define MAX\_FRAMES 3

int main() {

int page\_frames[MAX\_FRAMES];

int page\_reference[] = {1,2,3,2,1,5,2,1,6,2,5,6,3,1,3,6,1,2,4,3};

int num\_pages = sizeof(page\_reference) / sizeof(int);

int num\_frames = 0;

int num\_faults = 0;

int i, j, k;

for (i = 0; i < MAX\_FRAMES; i++) {

page\_frames[i] = -1;

}

for (i = 0; i < num\_pages; i++) {

int page = page\_reference[i];

int page\_found = 0;

for (j = 0; j < num\_frames; j++) {

if (page\_frames[j] == page) {

page\_found = 1;

for (k = j; k > 0; k--) {

page\_frames[k] = page\_frames[k-1];

}

page\_frames[0] = page;

break;

}

}

if (!page\_found) {

if (num\_frames < MAX\_FRAMES) {

page\_frames[num\_frames] = page;

num\_frames++;

} else {

for (j = MAX\_FRAMES - 1; j > 0; j--) {

page\_frames[j] = page\_frames[j-1];

}

page\_frames[0] = page;

}

num\_faults++;

}

printf("Page %d: ", page);

for (j = 0; j < num\_frames; j++) {

printf("%d ", page\_frames[j]);

}

printf("\n");

}

printf("Number of page faults: %d\n", num\_faults);

return 0;

OUTPUT For LRU

Page 1: 1

Page 2: 1 2

Page 3: 1 2 3

Page 2: 2 1 3

Page 1: 1 2 3

Page 5: 5 1 2

Page 2: 2 5 1

Page 1: 1 2 5

Page 6: 6 1 2

Page 2: 2 6 1

Page 5: 5 2 6

Page 6: 6 5 2

Page 3: 3 6 5

Page 1: 1 3 6

Page 3: 3 1 6

Page 6: 6 3 1

Page 1: 1 6 3

Page 2: 2 1 6

Page 4: 4 2 1

Page 3: 3 4 2

Number of page faults: 11

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Process exited after 0.04413 seconds with return value 0

Press any key to continue . . .