// Cooper Kelley (clk200002)

// pseudocode for project 3: updated ticket reservation systems

// objectives of this lab:

// 1) create and manipulate a linked list of linked lists

// 2) utilize classes to create a basic data structure

// auditorium class

generic auditorium class {

// members:

generic node first // acts as head pointer

// default constructor

auditorium() {

first = null;

}

// mutator

void setFirst(generic type newFirst) { first = newFirst; }

// accessor:

generic node getFirst() { return first };

}

// seat class

seat class {

// members:

int row;

char seat;

char tType;

// default constructor

seat() {

row = 0;

seat = '';

tType = '';

}

// overloaded constuctor

seat(int r, char s, char tT) {

row = r;

seat = s;

tType = tT;

}

// mutators

void setRow(int r) {row = s;}

void setSeat(char s) {seat = s;}

void setType(char tT) {tType = tT;}

// accessors

int getRow() {return row;}

char getSeat() {retrun seat;}

char getType() {return type;}

}

// node class

generic class node {

// members:

generic node next;

generic node down;

generic node prev;

generic payload;

// default constructor

node() {

next = null;

down = null;

prev = null;

payload = null;

}

// overloaded constuctor

node(node n, node d, node pr, generic pl) {

next = n;

down = d;

prev = p;

payload = pl;

}

// mutators

void setNext(node n) {next = n;}

void setDown(node d) {down = d;}

void setPrev(node pr) {prev = pr;}

void setPayload(generic pl) {payload = pl;}

// accessors

generic node getNext() {return next;}

generic node getDown() {return down;}

generic node getPrev() {return prev;}

generic payload() {return payload;}

}

// input validation

// how to implement the best available seats

// a list of at least 10 test cases you will check during testing

// specific input is not necessary

// describe what you are testing

// main:

main () {

create an auditorium object

read file into object

determine if seats are available:

reserve if available

determine if number of seats requested is available in a row

if not, calculate the closest seat using eucledian distance

wrtie the report to console

write the auditorium object to an output file

}

}