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//This class is used for developing a Stack.
class Stack {
    Node top;
    Node next;

    //The push function creates a new node for the old top.
    //It then creates a new node object and assigns a name.
    //The next node to the top is the old top.
    void push(String previous) {

        Node oldtop = top;
        top = new Node();
        top.name = previous;
        top.next = oldtop;
    }

    //The top function creates a new variable of type Node to the
    old top.
    //The top variable is equal to the next node and will return the old top.
    String pop() {
        Node oldTop = top;
        top = top.next;
        return oldTop.name;
    }
    //IsEmpty checks if the top is null which means the stack is empty.
    public boolean isEmpty() {
        return top == null;
    }
}

//The node class creates a node which has the values name and next.
//name is associated with the value of the Node. Node next is the next variable
class Node {
    String name;
    Node next;
}

class Queue {
    Node head, tail;

    void enqueue(String inComingChar) {

        Node oldtail = tail;
        tail = new Node();
        tail.name = inComingChar;
    }
}

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        tail.next = null;

        if (isEmpty()) {
            head = tail;
        } else {
            oldtail.next = tail;
        }
    }

    String dequeue() {
        String fetVal = "";
        if (!isEmpty()) {
            fetVal = head.name;
            head = head.next;
            return fetVal;
        }
        if (isEmpty()) {
            return "No value";
        }
        return fetVal;
    }

    boolean isEmpty() {
        if (head == null) {
            return true;
        } else {
            return false;
        }
    }
}

public class Homework1{

    public static void main(String[] args){
        int countOfPalindrome = 0;
        int count = 0;
        String myArray[];
        myArray = new String[666];
        try{
            File magicItems = new File("magicitems.txt");
            Scanner myScanner = new Scanner(magicItems);

            //This while loops scans the next line and puts it into the next index o
            while (myScanner.hasNextLine()) {
                String data = myScanner.nextLine();

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        myArray[count] = data;
        count++;
    }
    myScanner.close();
} catch (FileNotFoundException e) {
    System.out.println("An error occurred.");
    e.printStackTrace();
}

//This is where all of the above code comes together
//inititalize a new Stack and Queue object
Stack newStack = new Stack();
Queue newQueue = new Queue();
String queueValue;
String stackValue;

//Lines 121–129 will push and enqueue the charatacers of the strings onto a
for (int i = 0; i < myArray.length; i++){
    for (int j = 0; j < myArray[i].length(); j++){
        //System.out.println(Character.toString(myArray[i].charAt(j)));
        if (Character.toString(myArray[i].charAt(j)).equals(" ")) {
            continue;
        }
        newStack.push(Character.toString(myArray[i].charAt(j)).toLowerCase());
        newQueue.enqueue(Character.toString(myArray[i].charAt(j)).toLowerCase());
    }
}
//Lines 132–148. The Queue and Stack will check if a Node type is still in them.
//If there is a Node in them they will dequeue and pop them out of the stack and
//If the head of the queue and stack is null, then it will create a new object o
while(newQueue.head != null && newStack.top != null){
    queueValue = newQueue.dequeue();
    stackValue = newStack.pop();

    if (!queueValue.equals(stackValue)){
        newQueue = new Queue();
        newStack = new Stack();
        break;
    }
}
//print out the palindromes.
if (queueValue.equals(stackValue) && newStack.isEmpty()){
    System.out.println(myArray[i]);
    countOfPalindrome++;
}
}

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        }  
    }  
    System.out.println("There are " + countOfPalindrome + " paliondromes");  
    }  
}
```