

AppTest

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e 2()	<div></div>	0%		n/a	1 1	1 1	1 1
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AppTest.java

```
package edu.vanderbilt.cs278.team2.assign1;

import static org.junit.Assert.assertEquals;
import static org.junit.Assert.assertNotNull;
import static org.junit.Assert.assertTrue;
import static org.junit.Assert.fail;

import java.util.List;

import org.joda.time.DateTime;
import org.junit.Test;

public class AppTest {

    @Test
    public void test1() throws Exception {

    }

    @Test
    public void test2() throws Exception {

    }

}
```

HistoricalSite

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
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To al	86 of 125	31%	15 of 16	6%	17 26	24 41	9 18

HistoricalSite.java

```
package edu.vanderbilt.cs278.team2.assign1;

import com.fasterxml.jackson.annotation.JsonIgnore;
```

```

import com.fasterxml.jackson.annotation.JsonIgnoreProperties;
import com.fasterxml.jackson.annotation.JsonProperty;

@JsonIgnoreProperties(ignoreUnknown = true)
public class HistoricalSite {
    private boolean visited;

    @JsonProperty("title") private String displayName;
    @JsonProperty("location") private String locationDescription;
    @JsonProperty("latitude") private double latitude;
    @JsonProperty("longitude") private double longitude;
    @JsonProperty("marker_text") private String historyDescription;

    private Location location = new Location();

    public HistoricalSite() {
        super();
    }

    @Override
    public boolean equals(Object o) {
        // If the object is compared with itself then return true
        if (o == this) {
            return true;
        }

        /* Check if o is an instance of Complex or not
         "null instanceof [type]" also returns false */
        if (!(o instanceof HistoricalSite)) {
            return false;
        }

        // typecast o to Complex so that we can compare data members
        HistoricalSite c = (HistoricalSite) o;

        // Compare the data members and return accordingly
        return Double.compare(getLongitude(), c.getLocation().getLongitude()) == 0
            && Double.compare(getLatitude(), c.getLocation().getLatitude()) == 0
            && historyDescription == c.getHistoryDescription()
            && displayName == c.getDisplayName()
            && locationDescription == c.getLocationDescription();
    }

    public boolean isVisited() {
        return visited;
    }

    public HistoricalSite(String siteName) {
        this.displayName = siteName;
    }

    public void setVisited() {
        visited = true;
    }

    public void setUnvisited() {
        visited = false;
    }

    @JsonProperty("name")
    public void setDisplayName(String name) {
        displayName = name;
    }

    @JsonProperty("name")
    public String getDisplayName() {
        return displayName;
    }

    @JsonProperty("location")
    public void setLocationDescription(String description) {
        locationDescription = description;
    }

    @JsonProperty("location")
    public String getLocationDescription() {
        return locationDescription;
    }

    public void setLocation(Location l) {
        if (l == null)
            throw new IllegalArgumentException("Location cannot be null.");
        this.location = l;
    }

    public Location getLocation() {
        return location;
    }

    @JsonProperty("marker_text")
    public void setHistoryDescription(String description) {
        historyDescription = description;
    }

    @JsonProperty("marker_text")
    public String getHistoryDescription() {
        return historyDescription;
    }
}

```

```
}

@JsonProperty("latitude")
public double getLatitude() {
    return latitude;
}

@JsonProperty("latitude")
public void setLatitude(double latitude) {
    this.latitude = latitude;
}

@JsonProperty("longitude")
public double getLongitude() {
    return longitude;
}

@JsonProperty("longitude")
public void setLongitude(double longitude) {
    this.longitude = longitude;
}
}
```

HistoricalSiteDataProvider

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
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ge In ance()	<div></div>	100%	<div></div>	50%	1 2	0 3	0 1
Hi o icalSi eDa aP o ide ()	<div></div>	100%		n/a	0 1	0 3	0 1
e Si e Li (Li)	<div></div>	100%		n/a	0 1	0 2	0 1
a ic ...	<div></div>	100%		n/a	0 1	0 1	0 1
ge Si e Li ()	<div></div>	100%		n/a	0 1	0 1	0 1
To al	5 of 50	90%	1 of 2	50%	1 7	2 19	0 6

HistoricalSiteDataProvider.java

```
package edu.vanderbilt.cs278.team2.assign1;

import java.net.MalformedURLException;
import java.net.URL;
import java.util.List;

import com.fasterxml.jackson.databind.JavaType;
import com.fasterxml.jackson.databind.ObjectMapper;

public class HistoricalSiteDataProvider {
    public static final String NASHVILLE_HISTORICAL_SITES_URL = "https://data.nashville.gov/resource/2j6c-58gf.json";

    private static HistoricalSiteDataProvider instance = null;
    private List<HistoricalSite> sitesList = null;

    protected HistoricalSiteDataProvider() {
        // Exists only to defeat instantiation.
    }

    public static HistoricalSiteDataProvider getInstance() {
        if(instance == null) {
            instance = new HistoricalSiteDataProvider();
        }
        return instance;
    }

    public boolean fetchData() throws Exception {
        URL jsonURL = null;
        boolean success = true;
        try {
            jsonURL = new URL(NASHVILLE_HISTORICAL_SITES_URL);
        } catch (MalformedURLException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
            success = false;
        }

        JSONParser parser = new JSONParser(jsonURL);
        setSitesList(parser.getMarkerData());

        return success;
    }

    public List<HistoricalSite> getSitesList() {
        return sitesList;
    }
}
```

```

    public void setSitesList(List<HistoricalSite> sitesList) {
        this.sitesList = sitesList;
    }
}

```

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

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HistoricalSitesBroker

Elemen	Mi ed In cion	Co .	ed B an	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
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i i(Hi o icalSi e)	<input type="checkbox"/>		<input type="checkbox"/>		0		0
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 Hi o icalSi e B oke ja

HistoricalSitesBroker

```

package edu.vardhyan.historicalsitesbroker;

import java.util.ArrayList;
import java.util.Collections;
import java.util.List;
import java.util.concurrent.locks.ReentrantLock;
import java.util.concurrent.locks.ReentrantLock;

private HistoricalSitesQueue curList = new HistoricalSitesQueue();
private HistoricalSitesQueue masterList;

public HistoricalSitesQueue getVisitedList() {
    List<HistoricalSite> visitedSites = new ArrayList<HistoricalSite>();
    for (HistoricalSite hs : curList.getCurrentList()) {
        if (hs.isVisited()) {
            visitedSites.add(hs);
        }
    }
    if (visitedSites.size() > 0) {
        HistoricalSitesQueue visitedList = new HistoricalSitesQueue();
        visitedList.setCurrentList(visitedSites);
    }
}

```

```
}  
}
```

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Hi o icalSi e B oke IT.ne R nnable() ...

HistoricalSitesBrokerIT.new Runnable() {...}

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
_n()	<div><div></div></div>	92%	<div><div></div></div>	100%	0 2	2 8	0 1
_...	<div><div></div></div>	100%		n/a	0 1	0 2	0 1
To al	3 of 39	92%	0 of 2	100%	0 3	2 10	0 2

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Hi o icalSi e B oke IT.ne R nnable() ...

HistoricalSitesBrokerIT.new Runnable() {...}

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
_n()	<div><div></div></div>	83%		n/a	0 1	1 5	0 1
_...	<div><div></div></div>	100%		n/a	0 1	0 2	0 1
To al	3 of 21	86%	0 of 0	n/a	0 2	1 7	0 2

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Hi o icalSi e B oke IT.ne R nnable() ...

HistoricalSitesBrokerIT.new Runnable() {...}

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
_n()	<div><div></div></div>	83%		n/a	0 1	1 5	0 1
_...	<div><div></div></div>	100%		n/a	0 1	0 2	0 1
To al	3 of 21	86%	0 of 0	n/a	0 2	1 7	0 2

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Hi o icalSi e B oke IT.ne R nnable() ...

HistoricalSitesBrokerIT.new Runnable() {...}

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
_n()	<div><div></div></div>	90%	<div><div></div></div>	75%	1 3	1 7	0 1
_...	<div><div></div></div>	100%		n/a	0 1	0 2	0 1
To al	4 of 44	91%	1 of 4	75%	1 4	1 9	0 2

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Hi o icalSi e B oke IT.ne R nnable() ...

HistoricalSitesBrokerIT.new Runnable() {...}

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
_n()	<div><div></div></div>	22%	<div><div></div></div>	25%	2 3	4 7	0 1
_...	<div><div></div></div>	100%		n/a	0 1	0 2	0 1
To al	32 of 44	27%	3 of 4	25%	2 4	4 9	0 2

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Hi o icalSi e B oke IT

HistoricalSitesBrokerIT

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
ge ChoiceN_mbe (S_ing)	<div><div></div></div>	67%	<div><div></div></div>	50%	4 5	4 13	0 1
Hi o icalSi e B oke IT()	<div><div></div></div>	0%		n/a	1 1	1 1	1 1
main(S_ing[])	<div><div></div></div>	0%		n/a	1 1	2 2	1 1
a ic...	<div><div></div></div>	100%		n/a	0 1	0 8	0 1
To al	22 of 142	85%	4 of 8	50%	6 8	7 24	2 4

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HistoricalSitesBrokerIT.java

```

package edu.vanderbilt.cs278.team2.assign1;

/*
 * The idea for this and the TextMenu and TextMenuItem classes are
 * taken from: http://bytes.com/topic/java/insights/870013-text-based-menus
 * Accessed 9/24/2014
 * I do not claim any ownership or copyright.
 */

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import org.junit.Ignore;

import com.example.josah.textmenu.*;

/*
 * Integration testing for Historical Sites Broker using a text interface
 */
@Ignore("This is an integration test that needs to be run as a Java app")
public class HistoricalSitesBrokerIT {

    protected static HistoricalSitesBroker hsb = new HistoricalSitesBroker();

    public void test() throws IOException {
        if (hsb == null) {
            throw new RuntimeException("Do not have a HistoricalSitesBroker");
        }
        while (true) {
            System.out.println(hsb.getSystemIn());
        }
    }
}

```

```
        int counter = 1;
        for (HistoricalSite hs: hsb.getUnvisitedList().getCurrentList())
            System.out.println(" " + counter++ + ": " + hs.getDisplayName());
    }
}

});
private static TextMenu nestedMasterListMenu = new TextMenu("Master List", true, false, item1, allListSubItem1, allListSubItem2);
private static TextMenu topMenu = new TextMenu("top menu", false, true, nestedMasterListMenu, item2, item3);

public static void main(String args[]) {
    topMenu.run();
}
}
```

HistoricalSitesBrokerTest

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
e Reo de Li B Di ance()	<div></div>	0%	<div></div>	0%	3 3	19 19	1 1
e Main ain Sepa a eVi iedAndAllLi ()	<div></div>	0%	<div></div>	0%	7 7	14 14	1 1
e Ge Un i iedLi ()	<div></div>	0%	<div></div>	0%	2 2	11 11	1 1
Hi o icalSi e B oke Te ()	<div></div>	0%		n/a	1 1	2 2	1 1
To al	261 of 261	0%	18 of 18	0%	13 13	46 46	4 4

HistoricalSitesBrokerTest.java

```
package edu.vanderbilt.cs278.team2.assign1;

import static org.junit.Assert.*;

import org.junit.Test;
import java.util.Iterator;

public class HistoricalSitesBrokerTest {
    private HistoricalSitesBroker hsb = new HistoricalSitesBroker();
    private static final int NASHVILLE_GOV_HISTORICAL_SITES_MAX_COUNT = 155;

    @Test
    public void testGetUnvisitedList() {
        hsb.getCurrentList().discardList();
        hsb.add(new HistoricalSite("Franklin Park"));
        hsb.add(new HistoricalSite("Lewis Ginter Gardens"));
        assertFalse(hsb.getCurrentList().getCurrentList().isEmpty());
        Iterator<HistoricalSite> iter = hsb.getCurrentList().getCurrentList().iterator();
        HistoricalSite hs = iter.next();
        hs.setVisited();
        HistoricalSitesQueue hsq_unvisited = hsb.getUnvisitedList();
        assertTrue(hsq_unvisited.size()==1);
        assertFalse(hsq_unvisited.getCurrentList().iterator().next().equals(hs));
    }

    @Test
    public void testReorderListByDistance() {
        HistoricalSite hs1 = new HistoricalSite("Franklin Park");
        HistoricalSite hs2 = new HistoricalSite("Lewis Ginter Gardens");
        HistoricalSite hs3 = new HistoricalSite("Robert E. Lee Statue");
        hs1.setLocation(new Location(36.145426, -86.778297));
        hs2.setLocation(new Location(35.009388, -84.595385));
        hs3.setLocation(new Location(37.516996, -77.448288));

        hsb.getCurrentList().discardList();
        hsb.add(hs3);
        hsb.add(hs1);
        hsb.add(hs2);

        assertTrue(hsb.getCurrentList().size()==3);

        Location ourLocation = new Location(36.142203, -86.802715);

        HistoricalSitesQueue reorderedList = hsb.getCurrentList().getListReorderedByDistanceToLocation(ourLocation);
        assertTrue(reorderedList.size()==3);
        Iterator<HistoricalSite> iter = reorderedList.getCurrentList().iterator();

        assertTrue(iter.next().equals(hs1));
        assertTrue(iter.next().equals(hs2));
        assertTrue(iter.next().equals(hs3));
    }

    @Test
    public void testMaintainsSeparateVisitedAndAllLists() throws Exception {
        assertTrue(hsb.getMasterList().size()== NASHVILLE_GOV_HISTORICAL_SITES_MAX_COUNT);

        Iterator<HistoricalSite> iter = hsb.getMasterList().getCurrentList().iterator();
```

```
HistoricalSite hs1 = iter.next();
HistoricalSite hs2 = iter.next();

hsb.add(hs1);
hsb.add(hs2);

assertTrue(hsb.getCurrentList().size() == 2);
assertTrue(hsb.getUnvisitedList().size() == 2);

hsb.visit(hs1);
hsb.visit(hs2);

assertTrue(hsb.getCurrentList().size() == 2);
assertTrue(hsb.getMasterList().size() == NASHVILLE_GOV_HISTORICAL_SITES_MAX_COUNT);
assertTrue(hsb.getVisitedList().size() == 2);
```

}

}

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Historical Sites List

Element	Proposed Incision	Coupling	Mixed Branching	Coupling	Mixed C	Mixed Line	Mixed Method
Lithium Chemical Site	<div><div></div></div>	56%	<div><div></div></div>	56%	2 3	1 5	0 1
Lithium Chemical Site							
Total	24 of 77	69%	3 of 6	50%	5 12	6 21	2 9

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Section


```
public boolean isEmpty() {
    return sites.isEmpty();
}

public int size() {
    return sites.size();
}
}
```

HistoricalSitesListTest

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
e Li Se e AndGe e ()	<div></div>	0%	<div></div>	n/a	1 1	14 14	1 1
e AddDoe No D plica e()	<div></div>	0%	<div></div>	0%	3 3	9 9	1 1
e Dele eRemo e Simila Si e ()	<div></div>	0%	<div></div>	0%	2 2	9 9	1 1
e Add()	<div></div>	0%	<div></div>	0%	2 2	6 6	1 1
e Dele e()	<div></div>	0%	<div></div>	n/a	1 1	8 8	1 1
e Clea ()	<div></div>	0%	<div></div>	n/a	1 1	8 8	1 1
Hi o icalSi e Li Te ()	<div></div>	0%	<div></div>	n/a	1 1	1 1	1 1
To al	217 of 217	0%	8 of 8	0%	11 11	55 55	7 7

HistoricalSitesListTest.java

```
package edu.vanderbilt.cs278.team2.assign1;

import static org.junit.Assert.*;

import java.util.List;
import java.util.ArrayList;
import java.util.Collections;
import java.util.Iterator;
import org.junit.Test;

import edu.vanderbilt.cs278.team2.assign1.HistoricalSite;
import edu.vanderbilt.cs278.team2.assign1.HistoricalSitesList;

public class HistoricalSitesListTest {

    @Test
    public void testListSetterAndGetter() {
        HistoricalSite hs = new HistoricalSite(new String("Franklin Park"));
        HistoricalSite hs2 = new HistoricalSite(new String("Lewis Ginter Gardens"));

        HistoricalSitesList hsl = new HistoricalSitesList();
        List<HistoricalSite> sites = new ArrayList<HistoricalSite>(2);
        sites.add(hs);
        sites.add(hs2);
        hsl.setCurrentList(sites);

        Iterator<HistoricalSite> iter = hsl.getCurrentList().iterator();
        try {
            assertTrue(hs.equals(iter.next()));
            assertTrue(hs2.equals(iter.next()));
        }
        catch(RuntimeException e) {
            fail("List was of incorrect size");
        }
    }

    @Test
    public void testAddDoesNotDuplicate() {
        HistoricalSite hs = new HistoricalSite("Franklin Park");
        HistoricalSite hs2 = new HistoricalSite("Franklin Park");
        HistoricalSitesList hsl = new HistoricalSitesList();
        assertTrue(hsl.isEmpty());
        hsl.add(hs);
        assertTrue(hsl.size()==1);
        hsl.add(hs2);
        assertTrue(hsl.size()==1);
    }

    @Test
    public void testDeleteRemovesSimilarSites() {
        HistoricalSite hs = new HistoricalSite("Franklin Park");
        HistoricalSite hs2 = new HistoricalSite("Franklin Park");
        HistoricalSitesList hsl = new HistoricalSitesList();
        assertTrue(hsl.isEmpty());
        hsl.add(hs);
        assertTrue(hsl.size()==1);
        hsl.delete(hs2);
        assertTrue(hsl.isEmpty());
    }
}
```

```
}

@Test
public void testAdd() {
    HistoricalSite hs = new HistoricalSite("Franklin Park");
    HistoricalSitesList hsl = new HistoricalSitesList();
    assertTrue(hsl.getCurrentList().size()==0);
    hsl.add(hs);
    assertTrue(hsl.getCurrentList().get(0).equals(hs));
}

@Test
public void testDelete() {
    HistoricalSite hs = new HistoricalSite("Franklin Park");
    HistoricalSitesList hsl = new HistoricalSitesList();
    assertTrue(hsl.getCurrentList().isEmpty());
    hsl.add(hs);
    assertFalse(hsl.getCurrentList().isEmpty());
    hsl.delete(hs);
    assertTrue(hsl.getCurrentList().isEmpty());
}

@Test
public void testClear() {
    HistoricalSite hs = new HistoricalSite("Franklin Park");
    HistoricalSitesList hsl = new HistoricalSitesList();
    assertTrue(hsl.getCurrentList().isEmpty());
    hsl.add(hs);
    assertFalse(hsl.getCurrentList().isEmpty());
    hsl.discardList();
    assertTrue(hsl.getCurrentList().isEmpty());
}
}
```

HistoricalSitesQueue.DistanceComparator

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed
compa e(Hi o icalSi e. Hi o icalSi e)	<div></div>	0%		n/a	1 1	1 1	1
Hi o icalSi e Q e e.Di anceCompa a o (Hi o icalSi e Q e e. Loca ion)	<div></div>	0%		n/a	1 1	3 3	1
To al	22 of 22	0%	0 of 0	n/a	2 2	4 4	2

HistoricalSitesQueue

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
ea ange(Hi o icalSi e. Hi o icalSi e)	<div></div>	0%	<div></div>	0%	3 3	9 9	1 1
ge Li Reo de edB Di anceToLoca ion(Loca ion)	<div></div>	0%		n/a	1 1	5 5	1 1
ea ange(Hi o icalSi e. in)	<div></div>	0%	<div></div>	0%	3 3	5 5	1 1
ge Li Reo de edB Di anceToLoca ion(do ble, do ble)	<div></div>	0%		n/a	1 1	1 1	1 1
Hi o icalSi e Q e e()	<div></div>	100%		n/a	0 1	0 1	0 1
To al	108 of 111	3%	8 of 8	0%	8 9	20 21	4 5

HistoricalSitesQueue.java

```
package edu.vanderbilt.cs278.team2.assign1;

import java.util.ArrayList;
import java.util.Collections;
import java.util.Comparator;
import java.util.List;
import java.util.NoSuchElementException;

public class HistoricalSitesQueue extends HistoricalSitesList {

    protected class DistanceComparator implements Comparator<HistoricalSite> {
        protected Location l;
        public DistanceComparator(Location l) {
            this.l = l;
        }
        public int compare(HistoricalSite lhs, HistoricalSite rhs) {
            return (int)(l.getDistanceTo(lhs.getLocation()) - l.getDistanceTo(rhs.getLocation()));
        }
    }

    /**
```

```

*
* @param hs: one of the sites we want to arrange
* @param locationInQueue: the 0-based index of the other site we want to rearrange
* @throws IndexOutOfBoundsException: if the locationInQueue does not correspond to another site
*
* If the two sites are the same site then the function does nothing.
*
*/
public void rearrange(HistoricalSite hs, int locationInQueue) throws IndexOutOfBoundsException {
    HistoricalSite otherSite = sites.get(locationInQueue);
    if (hs==otherSite || hs.equals(otherSite)) {
        return;
    }
    rearrange(hs, otherSite);
}

public void rearrange(HistoricalSite lhs, HistoricalSite rhs) throws NoSuchElementException {
    // first check if they're both in the queue
    if (!sites.contains(lhs))
        throw new NoSuchElementException(lhs.getDisplayName() + " is not in the List.");
    if (!sites.contains(rhs))
        throw new NoSuchElementException(rhs.getDisplayName() + " is not in the List.");

    int index_lhs, index_rhs;
    index_lhs = sites.indexOf(lhs);
    index_rhs = sites.indexOf(rhs);
    sites.set(index_lhs, rhs);
    sites.set(index_rhs, lhs);
}

public HistoricalSitesQueue getListReorderedByDistanceToLocation(Location l) {
    List<HistoricalSite> reorderedList = new ArrayList<HistoricalSite>(sites);
    Collections.sort(reorderedList, new DistanceComparator(l));

    HistoricalSitesQueue hsq = new HistoricalSitesQueue();
    hsq.setCurrentList(reorderedList);
    return hsq;
}

public HistoricalSitesQueue getListReorderedByDistanceToLocation(double latitude, double longitude) {
    return getListReorderedByDistanceToLocation(new Location(latitude, longitude));
}
}

```

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

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[Hi o icalSi e B oke IT \(Sep 24, 2014 3:03:23 PM\)](#) > [eam2](#) > [a gn1/a igned_p ojec /code/ c/ e /ja a](#) > [ed . ande bil.c 278. eam2.a ign1](#) > [Se ion](#)

Hi o icalSi e Q e eTe

HistoricalSitesQueueTest

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
e Rea angeHi o icalSi eHi o icalSi e()	<input type="text"/>	0%		n/a	1 1	15 15	1 1
Hi o icalSi e Q e eTe ()	<input type="text"/>	0%		n/a	1 1	2 2	1 1
To al	75 of 75	0%	0 of 0	n/a	2 2	17 17	2 2

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

C ea ed i h JaCoCo 0.7.2.201409121644

[Hi o icalSi e B oke IT \(Sep 24, 2014 3:03:23 PM\)](#) > [eam2](#) > [a gn1/a igned_p ojec /code/ c/ e /ja a](#) > [ed . ande bil.c 278. eam2.a ign1](#) > [Se ion](#)

Hi o icalSi e Q e eTe .ja a

HistoricalSitesQueueTest.java

```

package edu.vanderbilt.cs278.team2.assign1;

import static org.junit.Assert.*;

import java.util.ArrayList;
import java.util.List;

import org.junit.Test;
import java.util.Iterator;

public class HistoricalSitesQueueTest {

    private HistoricalSitesQueue hsq = new HistoricalSitesQueue();

    @Test
    public void testRearrangeHistoricalSiteHistoricalSite() {
        HistoricalSite hs = new HistoricalSite(new String("Franklin Park"));
        HistoricalSite hs2 = new HistoricalSite(new String("Lewis Ginter Gardens"));

        hsq.discardList();
        hsq.add(hs);
        hsq.add(hs2);

        HistoricalSite hs_old, hs2_old, hs_new, hs2_new;
        Iterator<HistoricalSite> iter = hsq.getCurrentList().iterator();
        hs_old = iter.next();
        hs2_old = iter.next();

        hsq.rearrange(hs_old, hs2_old);

        iter = hsq.getCurrentList().iterator();
        hs_new = iter.next();
    }
}

```

```
hs2_new = iter.next();

assertFalse(hs_old.equals(hs_new));
assertFalse(hs2_old.equals(hs2_new));

}

}
```

edu.vanderbilt.cs278.team2.assign1

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e
Hi o icalSi e Q e e	<div><div></div></div>	3%	<div><div></div></div>	0%	8 9	20 21	4 5	0 1
Hi o icalSi e	<div><div></div></div>	31%	<div><div></div></div>	6%	17 26	24 41	9 18	0 1
Loca ion	<div><div></div></div>	21%	<div><div></div></div>	n/a	4 5	9 13	4 5	0 1
JSONPa e	<div><div></div></div>	49%	<div><div></div></div>	0%	2 4	8 15	1 3	0 1
Hi o icalSi e Li	<div><div></div></div>	69%	<div><div></div></div>	50%	5 12	6 21	2 9	0 1
Hi o icalSi e Q e e Di anceCompa a o	<div><div></div></div>	0%	<div><div></div></div>	n/a	2 2	4 4	2 2	1 1
Hi o icalSi e B oke	<div><div></div></div>	86%	<div><div></div></div>	75%	5 14	5 31	2 8	0 1
Hi o icalSi eDa aP o ide	<div><div></div></div>	90%	<div><div></div></div>	50%	1 7	2 19	0 6	0 1
Loca ionFac o	<div><div></div></div>	0%	<div><div></div></div>	n/a	1 1	1 1	1 1	1 1
To al	328 of 609	46%	32 of 46	30%	45 80	79 166	25 57	2 9

asgn1/assigned_project/code/src/test/java

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e
ed . ande bil .c 278. eam2.a ign1	<div><div></div></div>	27%	<div><div></div></div>	22%	41 55	143 184	20 32	5 11
To al	656 of 900	27%	36 of 46	22%	41 55	143 184	20 32	5 11

com.example.josah.textmenu

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e
Te Men	<div><div></div></div>	86%	<div><div></div></div>	83%	3 13	6 33	1 7	0 1
Te Men Lem	<div><div></div></div>	89%	<div><div></div></div>	100%	0 7	2 13	0 6	0 1
Te Men .ne R nnable() ...	<div><div></div></div>	50%	<div><div></div></div>	n/a	1 2	2 4	1 2	0 1
To al	29 of 201	86%	2 of 14	86%	4 22	10 49	2 15	0 3

team2

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e
a gn1/a igned_p ojec /code/ c/e /ja a	<div><div></div></div>	27%	<div><div></div></div>	22%	41 55	143 184	20 32	5 1
a gn1/a igned_p ojec /code/ c/main/ja a	<div><div></div></div>	56%	<div><div></div></div>	43%	49 102	89 215	27 72	2 1
To al	1,013 of 1,710	41%	70 of 106	34%	90 157	232 399	47 104	7 2

asgn1/assigned_project/code/src/main/java

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e
ed . ande bil .c 278. eam2.a ign1	<div><div></div></div>	46%	<div><div></div></div>	30%	45 80	79 166	25 57	2 9
com.e ample.jo ah. e men	<div><div></div></div>	86%	<div><div></div></div>	86%	4 22	10 49	2 15	0 3
To al	357 of 810	56%	34 of 60	43%	49 102	89 215	27 72	2 12

edu.vanderbilt.cs278.team2.assign1

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla
Hi o icalSi e B oke Te	<div><div></div></div>	0%	<div><div></div></div>	0%	13 13	46 46	4 4	1
Hi o icalSi e Li Te	<div><div></div></div>	0%	<div><div></div></div>	0%	11 11	55 55	7 7	1
Hi o icalSi e Q e eTe	<div><div></div></div>	0%	<div><div></div></div>	n/a	2 2	17 17	2 2	1

9/24/2014AppTe

Hi_o icalSi e B oke IT.ne_R nnable() ...	<div><div></div></div>	27%	<div><div></div></div>	25%	2	4	4	9	0	2	0
JSONPa_e Te_	<div><div></div></div>	0%	<div><div></div></div>	0%	3	3	6	6	2	2	1
Hi_o icalSi e B oke IT	<div><div></div></div>	85%	<div><div></div></div>	50%	6	8	7	24	2	4	0
AppTe_	<div><div></div></div>	0%	<div><div></div></div>	n/a	3	3	3	3	3	3	1
Hi_o icalSi e B oke IT.ne_R nnable() ...	<div><div></div></div>	91%	<div><div></div></div>	75%	1	4	1	9	0	2	0
Hi_o icalSi e B oke IT.ne_R nnable() ...	<div><div></div></div>	92%	<div><div></div></div>	100%	0	3	2	10	0	2	0
Hi_o icalSi e B oke IT.ne_R nnable() ...	<div><div></div></div>	86%	<div><div></div></div>	n/a	0	2	1	7	0	2	0
Hi_o icalSi e B oke IT.ne_R nnable() ...	<div><div></div></div>	86%	<div><div></div></div>	n/a	0	2	1	7	0	2	0
To al	656 of 900	27%	36 of 46	22%	41	55	143	184	20	32	5

edu.vanderbilt.cs278.team2.assign1

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e
Hi_o icalSi e B oke Te_ja_a	<div><div></div></div>	0%	<div><div></div></div>	0%	13 13	46 46	4 4	1 1
Hi_o icalSi e Li_ Te_ja_a	<div><div></div></div>	0%	<div><div></div></div>	0%	11 11	55 55	7 7	1 1
Hi_o icalSi e Q e eTe_ja_a	<div><div></div></div>	0%		n/a	2 2	17 17	2 2	1 1
Hi_o icalSi e B oke IT.ja_a	<div><div></div></div>	78%	<div><div></div></div>	56%	9 23	16 57	2 14	0 6
JSONPa_e Te_ja_a	<div><div></div></div>	0%	<div><div></div></div>	0%	3 3	6 6	2 2	1 1
AppTe_ja_a		0%		n/a	3 3	3 3	3 3	1 1
To al	656 of 900	27%	36 of 46	22%	41 55	143 184	20 32	5 11

edu.vanderbilt.cs278.team2.assign1

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e				
Hi_o icalSi e Q e eja_a	<div><div></div></div>	2%	<div><div></div></div>	0%	10	11	24	25	6	7	1	2
Hi_o icalSi eja_a	<div><div></div></div>	31%	<div><div></div></div>	6%	17	26	24	41	9	18	0	1
Loca ionja_a	<div><div></div></div>	21%		n/a	4	5	9	13	4	5	0	1
JSONPa_eja_a	<div><div></div></div>	49%	<div><div></div></div>	0%	2	4	8	15	1	3	0	1
Hi_o icalSi e Li_ja_a	<div><div></div></div>	69%	<div><div></div></div>	50%	5	12	6	21	2	9	0	1
Hi_o icalSi e B okeja_a	<div><div></div></div>	86%	<div><div></div></div>	75%	5	14	5	31	2	8	0	1
Hi_o icalSi eDa aP o ideja_a	<div><div></div></div>	90%	<div><div></div></div>	50%	1	7	2	19	0	6	0	1
Loca ionFac o_ja_a		0%		n/a	1	1	1	1	1	1	1	1
To al	328 of 609	46%	32 of 46	30%	45	80	79	166	25	57	2	9

com.example.josah.textmenu

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod	Mi ed Cla e
Te Men ja a	<div><div></div></div>	85%	<div><div></div></div>	83%	4 15	8 36	2 9	0 2
	<div><div></div></div>	89%	<div><div></div></div>	100%	0 7	2 13	0 6	0 1
To al	29 of 201	86%	2 of 14	86%	4 22	10 49	2 15	0 3


```
import com.fasterxml.jackson.databind.ObjectMapper;

public class JSONParser {

    private URL markerData;
    private final ObjectMapper objectMapper = new ObjectMapper();
    private final JavaType markerListType = objectMapper.getTypeFactory()
        .constructCollectionType(List.class, HistoricalSite.class);

    public JSONParser(URL url) {
        this.markerData = url;
    }

    public List<HistoricalSite> getMarkerData() throws Exception {
        return objectMapper.readValue(markerData, markerListType);
    }

    @SuppressWarnings("deprecation")
    public void printMarkerData() throws Exception {
        JsonFactory f = new JsonFactory();
        JsonParser jp = f.createJsonParser(markerData);
        jp.nextToken();
        while (jp.nextToken() != JsonToken.END_ARRAY) {
            System.out.println(jp.getCurrentName());
            jp.nextToken();
            System.out.println(jp.getText());
        }
    }
}
```

JSONParserTest

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
e Ge Ma ke Da a()	<div></div>	0%	<div></div>	0%	22	55	11
JSONPa e Te ()	<div></div>	0%		n/a	11	11	11
To al	31 of 31	0%	2 of 2	0%	33	66	22

JSONParserTest.java

```
package edu.vanderbilt.cs278.team2.assign1;

import static org.junit.Assert.*;

import java.net.URL;
import java.util.List;

import org.junit.Test;

public class JSONParserTest {
    private static final String NASHVILLE_HISTORICAL_SITES_URL = "https://data.nashville.gov/resource/2j6c-58gf.json";

    @Test
    public void testGetMarkerData() throws Exception {
        JSONParser json = new JSONParser(new URL(NASHVILLE_HISTORICAL_SITES_URL));
        List<HistoricalSite> sites = json.getMarkerData();
        assertTrue(sites.size() == 155); // there should be 155 entries in the historical markers list
        assertTrue(sites.get(0).getDisplayName().equals("HEATON'S STATION")); // first entry should be heaton's station
        //json.printMarkerData();
    }
}
```

Location

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
ge Di anceTo(Location)	<div></div>	0%		n/a	11	33	11
Location(do ble,do ble)	<div></div>	0%		n/a	11	44	11
ge Longi de()	<div></div>	0%		n/a	11	11	11
ge Lai de()	<div></div>	0%		n/a	11	11	11
Location()	<div></div>	100%		n/a	01	04	01
To al	34 of 43	21%	0 of 0	n/a	45	913	45

Location.java

```
package edu.vanderbilt.cs278.team2.assign1;

public class Location {
    private double latitude, longitude;

    public Location (double la, double lo) {
        this.latitude = la;
        this.longitude = lo;
    }

    public Location() {
        this.latitude = 0.0;
        this.longitude = 0.0;
    }

    public double getLongitude() {
        return 0.0;
    }

    public double getLatitude() {
        return 0.0;
    }

    public double getDistanceTo(Location rhs) {
        double retVal = Math.pow(this.latitude - rhs.latitude, 2);
        retVal += Math.pow(this.longitude - rhs.longitude, 2);
        return Math.sqrt(retVal);
    }
}
```

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

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[Hi o icalSi e B oke IT \(Sep 24, 2014 3:03:23 PM\)](#) > [eam2](#) > [a gn1/a igned_p ojec /code/ c/main/ja a](#) > [ed . ande bil.c 278.eam2.a ign1](#) > [Se ion](#)

Loca ionFac o

LocationFactory

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
Loca ionFac o .()	<div></div>	0%		n/a	1 1	1 1	1 1
To al	3 of 3	0%	0 of 0	n/a	1 1	1 1	1 1

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

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Loca ionFac o .ja a

LocationFactory.java

```
package edu.vanderbilt.cs278.team2.assign1;

public class LocationFactory {

}
```

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

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[Hi o icalSi e B oke IT \(Sep 24, 2014 3:03:23 PM\)](#) > [eam2](#) > [a gn1/a igned_p ojec /code/ c/main/ja a](#) > [com.e ample.jo ah.e men](#) > [Se ion](#)

Te Men .ne R nnable() ...

TextMenu.new Runnable() {...}

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
_n()	<div></div>	0%		n/a	1 1	2 2	1 1
_n()	<div></div>	100%		n/a	0 1	0 2	0 1
To al	3 of 6	50%	0 of 0	n/a	1 2	2 4	1 2

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

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[Hi o icalSi e B oke IT \(Sep 24, 2014 3:03:23 PM\)](#) > [eam2](#) > [a gn1/a igned_p ojec /code/ c/main/ja a](#) > [com.e ample.jo ah.e men](#) > [Te Men](#) > [Se ion](#)

TextMenu

Elemen	Mi ed In c ion	Co .	Mi ed B anche	Co .	Mi ed C	Mi ed Line	Mi ed Me hod
p omp()	<div></div>	72%	<div></div>	50%	2 3	3 9	0 1
Te Men (S ing.Te Men Lem[])	<div></div>	0%		n/a	1 1	1 1	1 1
_n()	<div></div>	78%	<div></div>	100%	0 2	2 6	0 1
di pla()	<div></div>	100%	<div></div>	100%	0 2	0 7	0 1
ini lali e(boolean,boolean,Te Men Lem[])	<div></div>	100%	<div></div>	100%	0 3	0 4	0 1
_a ic ...	<div></div>	100%		n/a	0 1	0 2	0 1
Te Men (S ing.boolean,boolean,Te Men Lem[])	<div></div>	100%		n/a	0 1	0 4	0 1
To al	22 of 158	86%	2 of 12	83%	3 13	6 33	1 7

Hi o icalSi e B oke IT (Sep 24, 2014 3:03:23 PM)

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[Hi o icalSi e B oke IT \(Sep 24, 2014 3:03:23 PM\)](#) > [eam2](#) > [a gn1/a igned_p ojec /code/ c/main/ja a](#) > [com.e ample.jo ah.e men](#) > [Te Men .ja a](#) > [Se ion](#)

TextMenu.java

```
package com.example.josah.textmenu;

/*
 * This code is taken from: http://bytes.com/topic/java/insights/870013-text-based-menus
 * Accessed 9/24/2014
 * I do not claim any ownership or copyright.
 */

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.List;

public class TextMenu extends TextMenuItem {

    private static final TextMenuItem quit= new TextMenuItem("quit", new Runnable() {
        public void run() {
            System.exit(0);
        }
    });

    private static final TextMenuItem back= new TextMenuItem("back");

    List<TextMenuItem> items;

    public TextMenu(String title, TextMenuItem ... items) { this(title, false, true, items); }

    public TextMenu(String title, boolean addBack, boolean addQuit, TextMenuItem ... items) {
        super(title);
        setExec(this);

        initialize(addBack, addQuit, items);
    }

    private void initialize(boolean addBack, boolean addQuit, TextMenuItem ... items) {

        this.items= new ArrayList<TextMenuItem>(Arrays.asList(items));
        if (addBack) this.items.add(back);
        if (addQuit) this.items.add(quit);
    }

    private void display() {

        int option= 0;
        System.out.println(getTitle()+":");
        for (TextMenuItem item : items) {
            System.out.println((option++)+": "+item.getTitle());
        }
        System.out.print("select option: ");
        System.out.flush();
    }

    private TextMenuItem prompt() throws IOException {

        BufferedReader br= new BufferedReader(new InputStreamReader(System.in));

        while (true) {

            display();

            String line = br.readLine();
            try {
                int option= Integer.parseInt(line);
                if (option >= 0 && option < items.size())
                    return items.get(option);
            }
            catch (NumberFormatException e) { }

            System.out.println("not a valid menu option: "+line);
        }
    }

    public void run() {

        try {
            for (TextMenuItem item= prompt(); item.isExec(); item= prompt())
                item.run();
        }
        catch (Throwable t) {
            t.printStackTrace(System.out);
        }
    }
}
```

TextMenuItem

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TextMenuItem.java

```
package com.example.josah.textmenu;

/*
 * This code is taken from: http://bytes.com/topic/java/insights/870013-text-based-menus
 * Accessed 9/24/2014
 * I do not claim any ownership or copyright.
 */

public class TextMenuItem implements Runnable {

    private String title;
    private Runnable exec;

    protected TextMenuItem(String title) { this(title, null); }

    public TextMenuItem(String title, Runnable exec) {
        this.title= title;
        this.exec= exec;
    }

    public String getTitle() { return title; }

    public boolean isExec() { return exec != null; }

    protected void setExec(Runnable exec) { this.exec= exec; }

    public void run() {

        try {
            exec.run();
        }
        catch (Throwable t) {
            t.printStackTrace(System.err);
        }
    }
}
```