

I Love Baseball

A list of all major league baseball stadiums resides at http://en.wikipedia.org/wiki/List_of_Major_League_Baseball_stadiums. A list of all the major league baseball teams reside at <http://mlb.com>. You are to write a program that inputs this data and stores this data in a suitable data structure. (heap, tree, etc.) This data will allow baseball fans to plan their dream vacation.

The initial souvenir list is as follows

- | | |
|-------------------------|---------|
| a. Baseball cap | \$25.99 |
| b. Baseball bat | \$35.35 |
| c. Team pennant | \$12.99 |
| d. Autographed baseball | \$19.99 |

1. Write at least 10 agile stories (including description, tasks, test scenarios, and story points) before any software development.
2. You should create a list of the major league stadiums by name in alphabetical order.
3. You should create a list of major league stadiums sorted by team name.
4. You should create a list of American League stadiums sorted by team name.
5. You should create a list of National League stadiums sorted by team name.
6. You should create a list of stadiums that have grass surface sorted by team name.
7. You should create a list of stadiums in chronological order by date opened

Planning a vacation:

1. Design a trip to all the major league stadiums with the shortest path starting at a stadium in California. Print the number of

- stadiums visited and the total distance travelled.
2. Design a trip to all the American League stadiums with the shortest path starting at a stadium in California. Print the number of stadiums visited and the total distance travelled.
 3. Design a trip to all the National League stadiums with the shortest path starting at a stadium in California. Print the number of stadiums visited and the total distance travelled.
 4. Provide the capability for a baseball fan to plan his/her dream vacation. Print the number of stadiums visited and the total distance travelled.
 5. Provide the capability to track souvenirs purchased by the baseball fans on their trips and the corresponding costs.
 6. Provide the ability to modify stadium information if a team moves into a new stadium. (administrator only)
 7. Provide the ability to add a new team and corresponding stadium if major league baseball decides to expand. (administrator only)
 8. You should be able to randomly access any baseball stadium.
 9. You should be able to modify (add/delete/change) the souvenirs list and their prices. (administrator only)
 10. You should be able to print out the distances between any two stadiums.

No late projects will be accepted. Your team must demonstrate your project to me before it will be graded. Each teammate must identify their accomplishments on the project. Design a very readable, easy to use interface to demonstrate your program. Contingency handling should include addressing invalid input.

The assignment will be graded using the following scale:

	Value
Meet Requirements	6
Style	3
Use of C++ data structures	4
User interface (using Qt)	3
Contingency handling	3
Adherence to Scrum	3
Identification of Big O	4
User stories completed (5/12/17)	4
Sprint 1 (5/19/17)	5
Sprint 2 (6/2/17)	5
Total	40

Due Dates:

May 12, 2017 - Agile stories within some agile project management software. Stories should include proper description, any tasks that need to be completed, as well as the definition of done.

May 19, 2017 - Sprint 1 - First presentation of your project to the customer will need to be presented. You will indicate what stories you have completed and what stories have yet to be completed.

June 2, 2017 - Sprint 2 - Second presentation of your project. You will indicate what stories you have completed and what stories have yet to be completed.

Stadiums

The information is in the following format:

- Stadium Name
- Team Name
- Street Address
- City, State, Zip
- Box Office #
- Date Opened
- Seating Capacity

AMERICAN LEAGUE TEAMS:

Angels Stadium of Anaheim
Los Angeles Angels of Anaheim
2000 E Gene Autry Way,
Anaheim, CA 92806
(714)940-2000
Opened – April 19, 1966
Capacity – 45,483

Comerica Park
Detroit Tigers
2100 Woodward Ave,
Detroit, MI 48201
(313) 962-4000
Opened – April 11, 2000
Capacity – 41,681

Fenway Park
Boston Red Sox
4 Yawkey Way,
Boston, MA 02215
(877) 733-7699
Opened – April 20, 1912
Capacity – 37,499 (night) & 37,071 (day)

Globe Life Park in Arlington
Texas Rangers
1000 Ballpark Way,
Arlington, TX 76011
(817) 273-5222
Opened – April 1, 1994
Capacity – 48,114

Kauffman Stadium
Kansas City Royals
1 Royal Way
Kansas City, MO 64129
(816) 921-8000
Opened – April 10, 1973
Capacity – 37,903

Minute Maid Park
Houston Astros
501 Crawford St,
Houston, TX 77002
(713) 259-8000
Opened - March 30, 2000
Capacity - 42,060

O.co Coliseum
Oakland Athletics
7000 Coliseum Way
Oakland, CA 94621
(510) 569-2121
Opened - September 18, 1966
Capacity - 37,090 (April - August) & 55,945 (Sept - Jan)

Oriole Park at Camden Yards
Baltimore Orioles
333 West Camden Street
Baltimore, MD 21201
(410) 685-9800
Opened - April 6, 1992
Capacity - 48,187

Progressive Field
Cleveland Indians
2401 Ontario Street
Cleveland, OH 44115
(216) 420-4487
Opened - April 2, 1994
Capacity - 42,404

Rogers Centre
Toronto Blue Jays
1 Blue Jays Way
Toronto, Ontario, Canada M5V1J3
+1 416-341-1000
Opened - June 3, 1989
Capacity - 49,282

SafeCo Field
Seattle Mariners
1516 First Avenue South
Seattle, WA 98134
(206) 346-4000
Opened - July 15, 1999
Capacity - 47,476

Target Field
Minnesota Twins
353 N 5th St
Minneapolis, MN 55403
(800) 338-9467
Opened - April 12, 2010
Capacity - 39,021

Tropicana Field
Tampa Bay Rays
1 Tropicana Dr
St. Petersburg, FL 33705
(727) 825-3137
Opened - March 3, 1990
Capacity - 31,042 (Regular Season) 42,735 (Postseason)

US Cellular Field
Chicago White Sox
333 West 35th Street
Chicago, IL 60616
(312) 674-1000
Opened - April 18, 1991
Capacity - 40,615

Yankee Stadium
New York Yankees
1 E 161st St
South Bronx, NY 10451
(718) 293-4300
Opened - April 16, 2009
Capacity - 50,291

NATIONAL LEAGUE TEAMS:

AT&T Park
San Francisco Giants
24 Willie Mays Plaza
San Francisco, CA 94107
(415) 972-2000
Opened - April 11, 2000
Capacity - 41,915

Busch Stadium
St. Louis Cardinals
700 Clark Street
St. Louis, MO 63102
(314) 345-9600
Opened - April 10, 2006
Capacity - 46,861

Chase Field
Arizona Diamondbacks
401 East Jefferson Street
Phoenix, AZ 85004
(602) 462-6500
Opened - March 31, 1998
Capacity - 48,633

Citi Field
New York Mets
126th St. & Roosevelt Ave.
Queens, NY 11368
(718) 507-6387
Opened - April 13, 2009
Capacity - 41,922

Citizens Bank Park
Philadelphia Phillies
1 Citizens Bank Way

Philadelphia, PA 19148
(215) 463-1000
Opened - April 3, 2004
Capacity - 43,651

Coors Field
Colorado Rockies
2001 Blake St
Denver, CO 80205
(303) 292-0200
Opened - April 26, 1995
Capacity - 50,480

Dodger Stadium
Los Angeles Dodgers
1000 Elysian Park Avenue
Los Angeles, CA 90090
(323) 224-1507
Opened - April 10, 1962
Capacity - 56,000

Great America Ball Park
Cincinnati Reds
100 Joe Nuxhall Way
Cincinnati, OH 45202
(513) 381-7337
Opened - March 31, 2003
Capacity - 42,319

Marlins Park
Miami Marlins
501 Marlins Way
Miami, FL 33125
(305) 480-1300
Opened - April 4, 2012
Capacity - 37,442

Miller Park
Milwaukee Brewers
1 Brewers Way

Milwaukee, WI 53214
(414) 902-4400
Opened - April 6, 2001
Capacity - 41,900

Nationals Park
Washington Nationals
1500 S Capitol St SE
Washington, DC 20003
(202) 675-6287
Opened - March 30, 2008
Capacity - 41,418

Petco Park
San Diego Padres
19 Tony Gwynn Drive
San Diego, CA 92101
(619) 795-5000
Opened - April 8, 2004
Capacity - 42,524

PNC Park
Pittsburgh Pirates
115 Federal St
Pittsburgh, PA 15212
(412) 321-2827
March 31, 2001
38,362
N

Turner Field
Atlanta Braves
755 Hank Aaron Drive
Atlanta, GA 30315
(404) 522-7630
Opened - March 29, 1997
Capacity - 49,586

Wrigley Field
Chicago Cubs

1060 West Addison Street
Chicago, IL 60613
(773) 404-2827
Opened - April 23, 1914
Capacity - 42,374