Assignment 1

Produced by

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Assignment structure

- 100% CA (2 Assignments)
 - Assignment 1 (40%) due Sunday, 5th November 2017 (hard deadline).
 - No presentation required, but you may be asked to do a code walkthrough.
 - Assignment 2 (60%) due Wed, 3rd January 2018 (hard deadline).
 - Specified in week 7 (tentative).
 - Pre-record a 5 minute presentation / video. PPT Template is provided.
 - Adobe connect (private) code walkthrough.

Pacemaker V1

- Design and implement a simple Activity Tracker console (CLI) application.
- The application is to manage activities for multiple user accounts, enabling activities to be created, read, updated and deleted (CRUD).
- The application is to persist the user and activity data to a single file. Two file formats are to be supported:
 - XML
 - JSON
- Labs will proceed to build approx. 50% of the specification...your job is to complete the other 50%.
- Partial solutions (unimplemented commands or partially implemented commands) are acceptable.

Command Set

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev name
                           params
111
      list-users
                           ()
                           (first name, last name, email, password)
     create-user
Cll
      list-user
                           (email)
lu
lius
      list-user
                           (id)
la
      list-activities
                           (userid, sortBy: type, location, distance, date, duration)
      list-activities
                           (user id)
la
      delete-user
                           (id)
du
      add-activity
                           (user-id, type, location, distance, datetime, duration)
aa
      add-location
                           (activity-id, latitude, longitude)
al
cff
      change-file-format
                           (file format: xml, json)
      load
                           ()
                           ()
      store
S
pm>
```

cu - Create User

```
        pm> cu homer simpsom
        homer@simpson.com
        secret

        ok
        +---+-----+
        | ID | FIRSTNAME | LASTNAME | EMAIL | PASSWORD |

        | +---+-----+
        | 1 | homer | simpsom | homer@simpson.com | secret |

        | pm>
```

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
          name
                                params
          list-users
                                (first name, last name, email, password)
          create-user
          list-user
                                (email)
lius
          list-user
la
          list-activities
                                (userid, sortBy: type, location, distance, date, duration)
la
          list-activities
                                (user id)
du
          delete-user
aa
          add-activity
                                (user-id, type, location, distance, datetime, duration)
al
          add-location
                                (activity-id, latitude, longitude)
cff
          change-file-format
                                (file format: xml, json)
1
          load
                                ()
                                ()
S
          store
```

aa - Add an Activity for a userla - List details of an activity

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
                                params
          list-users
                                (first name, last name, email, password)
          create-user
          list-user
                                (email)
lius
          list-user
la
          list-activities
                                (userid, sortBy: type, location, distance, date, duration)
          list-activities
                                (user id)
du
          delete-user
                                (user-id, type, location, distance, datetime, duration)
          add-activity
          add-location
                                (activity-id, latitude, longitude)
cff
          change-file-format
                                (file format: xml, json)
1
          load
                                ()
                                ()
          store
```

al - Append Location data to an activity

```
pm> al 1 23.3 32.3
ok
pm> al 1 23.3 32.5
ok
pm> al 1 23.3 32.6
ok
pm> la 1
+---+
| ID | TYPE | LOCATION | DISTANCE | STARTTIME | DURATION | ROUTE |
+---+
| 1 | walk | fridge | 0.001 | 2013-10-12T09:00:00.000+01:00 | PT3600S | [23.3,32.3, 23.3,32.5] |
+---+
| pm>
```

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
                                params
lu
          list-users
                                (first name, last name, email, password)
          create-user
lu
          list-user
                                (email)
lius
          list-user
la
          list-activities
                                (userid, sortBy: type, location, distance, date, duration)
          list-activities
                                (user id)
du
          delete-user
          add-activity
                                (user-id, type, location, distance, datetime, duration)
aa
          add-location
                                (activity-id, latitude, longitude)
cff
          change-file-format
                                (file format: xml, json)
1
          load
                                ()
                                ()
S
          store
```

lu - List all Users

```
pm> lu
ok
       FIRSTNAME
                   LASTNAME
                                                  PASSWORD
                                     EMAIL
                               marge@simpson.com
                    simpson |
          marge
                                                     secret
                    simpson |
                              lisa@simpson.com
            lisa |
                                                     secret
                              bart@simpson.com
           bart |
                    simpson |
                                                     secret
         maggie | simpson | maggie@simpson.com
                                                     secret
pm>
```

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
          name
                                 params
          list-users
                                 (first name, last name, email, password)
          create-user
lu
          list-user
                                 (email)
lius
          list-user
                                 (id)
la
          list-activities
                                 (userid, sortBy: type, location, distance, date, duration)
          list-activities
                                 (user id)
du
          delete-user
                                 (id)
aa
          add-activity
                                 (user-id, type, location, distance, datetime, duration)
al
          add-location
                                 (activity-id, latitude, longitude)
cff
          change-file-format
                                 (file format: xml, json)
1
          load
                                 ()
S
                                 ()
          store
```

lu - List user based in email

```
        pm> lu marge@simpson.com

        ok

        +---+-----+

        | ID | FIRSTNAME | LASTNAME | EMAIL | PASSWORD |

        +---+----+

        | 1 | marge | simpson | marge@simpson.com | secret |

        +---+----+
```

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
          name
                                params
          list-users
                                (first name, last name, email, password)
          create-user
                                (email)
          list-user
lius
          list-user
la
          list-activities
                                (userid, sortBy: type, location, distance, date, duration)
          list-activities
                                (user id)
du
          delete-user
                                (id)
aa
          add-activity
                                (user-id, type, location, distance, datetime, duration)
al
          add-location
                                (activity-id, latitude, longitude)
cff
          change-file-format
                                (file format: xml, json)
1
          load
                                ()
                                ()
S
          store
```

lius - list user based on id

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
          name
                                params
          list-users
                                (first name, last name, email, password)
          create-user
                                (email)
          list-user
lius
          list-user
la
          list-activities
                                (userid, sortBy: type, location, distance, date, duration)
          list-activities
                                (user id)
du
          delete-user
                                (id)
aa
          add-activity
                                (user-id, type, location, distance, datetime, duration)
al
          add-location
                                (activity-id, latitude, longitude)
cff
          change-file-format
                                (file format: xml, json)
1
          load
                                ()
                                ()
S
          store
```

du - delete user

```
pm> du 2
ok
pm> lu
ok
       FIRSTNAME
                  LASTNAME
                                    EMAIL
                                                  PASSWORD
                   simpson |
                              marge@simpson.com |
          marge |
                                                    secret
                             bart@simpson.com
           bart | simpson |
                                                    secret
         maggie |
                   simpson | maggie@simpson.com
                                                    secret
pm>
```

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
           name
                                 params
           list-users
                                 (first name, last name, email, password)
           create-user
lu
                                 (email)
          list-user
lius
          list-user
                                 (id)
la
          list-activities
                                 (userid, sortBy: type, location, distance, date, duration)
          list-activities
                                 (user id)
du
          delete-user
                                 (id)
aa
          add-activity
                                 (user-id, type, location, distance, datetime, duration)
al
           add-location
                                 (activity-id, latitude, longitude)
cff
           change-file-format
                                 (file format: xml, json)
1
          load
                                 ()
S
                                 ()
           store
```

la - list activity sorted by different fields

ok	a 1					+	
+ ID	TYPE	LOCATION	DISTANCE		DURATION	•	
+ 1	+ walk	+ fridge	0.001	2013-05-12T09:30:00.000+01:00	PT10S	[23.3,33.3, 34.4,45.2, 25.3,34.3, 44.4,23.3]	
	walk run +	work	2.2	2013-05-17T10:30:00.000+01:00 2013-06-10T11:00:00.000+01:00	PT50S	[]	
om> 1 .	a 1 type	e				· +	
+ ID	+ TYPE	LOCATION		STARTTIME	DURATION	ROUTE	
2	walk walk	fridge bar	0.001	2013-06-10T11:00:00.000+01:00 2013-05-12T09:30:00.000+01:00 2013-05-17T10:30:00.000+01:00	PT50S PT10S PT30S	[23.3,33.3, 34.4,45.2, 25.3,34.3, 44.4,23.3]	
	a 1 dis	tance					
) K 	+	+	+	+	+	+	
	+ TYPE	+ LOCATION	+	STARTTIME	+	'	
ID 	+ walk	+ fridge	0.001	2013-05-12T09:30:00.000+01:00	DURATION	'	
+ ID + 1	+ walk walk	+	0.001	2013-05-12T09:30:00.000+01:00 2013-05-17T10:30:00.000+01:00 2013-06-10T11:00:00.000+01:00	DURATION	ROUTE	
1 2 3 	walk walk run run	fridge bar work	0.001	2013-05-12T09:30:00.000+01:00 2013-05-17T10:30:00.000+01:00 2013-06-10T11:00:00.000+01:00	DURATION TO PT10S PT30S PT50S	ROUTE	
ID 1 2 3 com> 1	walk walk run run total	fridge bar work work 	0.001 1 2.2 +	2013-05-12T09:30:00.000+01:00 2013-05-17T10:30:00.000+01:00 2013-06-10T11:00:00.000+01:00 STARTTIME	DURATION TO DURATION TO DURATION TO DURATION	ROUTE	
ID 1 2 3 5 5 5 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	walk walk run da 1 dura	fridge bar work + ation LOCATION	0.001 1 2.2 +	2013-05-12T09:30:00.000+01:00 2013-05-17T10:30:00.000+01:00 2013-06-10T11:00:00.000+01:00	DURATION TO DURATION TO DURATION TO DURATION TO DURATION TO DURATION	ROUTE	

cff - change file format (json or xml) load - read from persistent store (all users + activities) store - write to persistent store (all users + activities)

```
pm> cff json
pm> load
..
..
pm> store

pm> cff xml
..
..
pm> store
```

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev
                                 params
          list-users
          create-user
                                 (first name, last name, email, password)
lu
          list-user
                                 (email)
lius
          list-user
                                 (userid, sortBy: type, location, distance, date, duration)
          list-activities
                                 (user id)
          list-activities
          delete-user
          add-activity
                                 (user-id, type, location, distance, datetime, duration)
aa
al
          add-location
                                 (activity-id, latitude, longitude)
cff
          change-file-format
                                 (file format: xml, json)
                                 ()
          load
                                 ()
          store
```

Unimplemented Commands

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev name
                           params
      list-users
111
                            ()
                            (first name, last name, email, password)
      create-user
CU
                            (email)
      list-user
lu
      list-user
lius
                            (id)
                            (userid, sortBy: type, location, distance, date, duration)
la
      list-activities
                            (user id)
la
      list-activities
      delete-user
du
                            (id)
                            (user-id, type, location, distance, datetime, duration)
      add-activity
aa
      add-location
                            (activity-id, latitude, longitude)
al
cff
      change-file-format
                           (file format: xml, json)
      load
                            ()
      store
                            ()
pm>
```

lius, la (sort by), la, du, cff, l, s

Assignment Rubric for Assignment 1

Standard	Core Features [30%]	Presentation [20%]	Tests [30%]	Build Systems [20%]
Baseline	Users/Activities/Locations (lius, la, du)	Plain	basic API tests	none
Good	Start DateTime (la sortBy:) Persistence - XML (l, s)	Pretty	full API tests	maven (build)
Excellent	Persistence -JSON (cff)	Tabular	UI Tests	maven (test)
Outstanding	Persistence - YAML OR Extra Reports	Enhanced	accurate coverage report submitted	maven (modular approach)

Assignment submission





Zip your project and submit it via the assignment dropbox in Moodle by the specified date.

Include a README file that will give a very brief summary of your submission. It should include a very brief description of your:

- persistence approach.
- presentation approach.
- testing approach.
- build system approach.

In this file, identify all components/plugins used in the assignment.



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