# Agile Software Development

Produced by

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# Assignment 1

# Continuous Assessment

- Project 1 40%
- Project 2 60%

# 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.
- The application is to persist the user and activity data to a single file
- Two file formats are to be supported:
  - XML
  - JSON

# Commands

```
Welcome to pacemaker-console - ?help for instructions
pm> ?la
abbrev name                 params
lu     list-users           ()
cu     create-user          (first name, last name, email, password)
lu     list-user            (email)
lius   list-user            (id)
la     list-activities      (userid, sortBy: type, location, distance, date, duration)
la     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)
l      load                 ()
s      store                ()
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>
```

# aa - Add an Activity for a user

```
pm> aa 1 walk fridge .001 "12:10:2013 9:00:00" 1:00:00
ok

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

pm>
```

# la - List details of an activity

# 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>
```

# lu - List all Users

```
pm> lu
ok
+----+-----------+----------+--------------------+----------+
| ID | FIRSTNAME | LASTNAME |        EMAIL       | PASSWORD |
+----+-----------+----------+--------------------+----------+
|  1 |     marge |  simpson |  marge@simpson.com |   secret |
|  2 |      lisa |  simpson |   lisa@simpson.com |   secret |
|  3 |      bart |  simpson |   bart@simpson.com |   secret |
|  4 |    maggie |  simpson | maggie@simpson.com |   secret |
+----+-----------+----------+--------------------+----------+

pm>
```

# lu - List user based in email

```
pm> lu marge@simpson.com
ok
+----+-----------+----------+--------------------+-----------+
| ID | FIRSTNAME | LASTNAME |       EMAIL        | PASSWORD  |
+----+-----------+----------+--------------------+-----------+
|  1 |     marge |  simpson | marge@simpson.com  |   secret  |
+----+-----------+----------+--------------------+-----------+

pm>
```

# lius - list user based on id

```
pm> lius 1
ok
+----+-----------+----------+--------------------+-----------+
| ID | FIRSTNAME | LASTNAME |       EMAIL        | PASSWORD  |
+----+-----------+----------+--------------------+-----------+
|  1 |     marge |  simpson | marge@simpson.com  |   secret  |
+----+-----------+----------+--------------------+-----------+

pm>
```

# du - delete user

```
pm> du 2
ok

pm> lu
ok
+----+-----------+----------+--------------------+----------+
| ID | FIRSTNAME | LASTNAME |        EMAIL       | PASSWORD |
+----+-----------+----------+--------------------+----------+
|  1 |     marge |  simpson |  marge@simpson.com |   secret |
|  3 |      bart |  simpson |   bart@simpson.com |   secret |
|  4 |    maggie |  simpson | maggie@simpson.com |   secret |
+----+-----------+----------+--------------------+----------+

pm>
```

# la - list activity sorted by different fields

```
pm> la 1
ok
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
| ID | TYPE | LOCATION | DISTANCE |             STARTTIME           | DURATION |                  ROUTE                  |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
|  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] |
|  2 | walk |      bar |        1 | 2013-05-17T10:30:00.000+01:00 |    PT30S |                                      [] |
|  3 |  run |     work |      2.2 | 2013-06-10T11:00:00.000+01:00 |    PT50S |                                      [] |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+

pm> la 1 type
ok
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
| ID | TYPE | LOCATION | DISTANCE |             STARTTIME           | DURATION |                  ROUTE                  |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
|  3 |  run |     work |      2.2 | 2013-06-10T11:00:00.000+01:00 |    PT50S |                                      [] |
|  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] |
|  2 | walk |      bar |        1 | 2013-05-17T10:30:00.000+01:00 |    PT30S |                                      [] |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+

pm> la 1 distance
ok
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
| ID | TYPE | LOCATION | DISTANCE |             STARTTIME           | DURATION |                  ROUTE                  |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
|  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] |
|  2 | walk |      bar |        1 | 2013-05-17T10:30:00.000+01:00 |    PT30S |                                      [] |
|  3 |  run |     work |      2.2 | 2013-06-10T11:00:00.000+01:00 |    PT50S |                                      [] |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+

pm> la 1 duration
ok
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
| ID | TYPE | LOCATION | DISTANCE |             STARTTIME           | DURATION |                  ROUTE                  |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
|  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] |
|  2 | walk |      bar |        1 | 2013-05-17T10:30:00.000+01:00 |    PT30S |                                      [] |
|  3 |  run |     work |      2.2 | 2013-06-10T11:00:00.000+01:00 |    PT50S |                                      [] |
+----+------+----------+----------+---------------------------------+----------+-----------------------------------------+
```

# cff - change file format (json or xml)

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


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

load - read from persistent store (all users + activities)

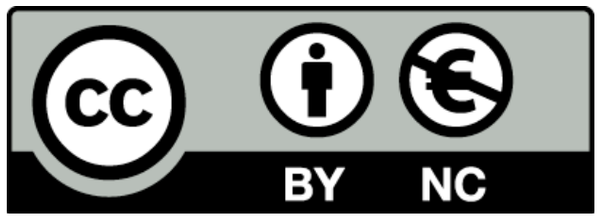
store - write to persistent store (all users + activities)

# Modalities

- Labs will proceed to build approx 50% of the specification
- ... your job us to complete the other 50%
- Partial solutions (unimplemented commands or partially implemented commands) are acceptable
- Marking scheme will be discussed over the next few sessions
- You may choose to implement assignment in a different language from the labs
    - ... but talk to me first.

# Due Date

- Thursday October 24
- Hard deadline
- Solution released on Friday October 25



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