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ASPARK-STARTER

1. WHAT IS IT ?!

A demo application which will help you to grasp the Apache Spark concept.

2. INSTALLATION AND CONFIGURATION

This section presents the steps needed to perform to deploy the aspark-starter tool. Note, that the commands are for Ubuntu, thus if you are on different OS choose , google the names of the packages applicable for your OS.

2.1. Ensure you have the following prerequisite binaries

The must have binaries are:
bash, perl, zip
The nice to have are:
tmux, vim ,ctags
The examples are for Ubuntu - use you OS package manager …

```
apt-get autoclean
apt-get install --only-upgrade bash
sudo apt-get install -y perl
sudo apt-get install -y zip
apt-get upgrade
```

2.2. Fetch the source - option 1

Fetch the source from git hub as follows:

```
# create your product dir:
mkdir -p /opt/csitea/
cd /opt/csitea/

# fetch the source
git clone git@github.com:YordanGeorgiev/aspark-starter.git

# DO NOT CD into the new dir !!!!
```

2.3. Ensure you have all the prerequisite binaries

Ensure you have all the prerequisite binaries by issuing the following command

```
# bootstrap the product instance dir
bash aspark-starter/src/bash/aspark-starter/install-prerequisites-for-aspark-starter-on-ubuntu.sh
```

2.4. Build the first aspark-starter instance

Build the aspark-starter instance by running the bootstrap script

```
# bootstrap the product instance dir
bash aspark-starter/src/bash/aspark-starter/bootstrap-aspark-starter.sh
```

```
# the script should prompt you to cd
```

2.5. Check the runnable actions

You could check the functions which could be run - aka "actions" by issuing the following command.

```
# check the runnable with the -a cmd arg actions
find . -name '*.func.sh' | sort
```

2.6. Run the examples

You can run all the examples by first checking which actions are configured for the next test run and perform the actual test run as follows:

```
# check the actions to run
  cat src/bash/aspark-starter/tests/run-aspark-starter-tests.lst

# STDOUT
# sbt-compile-verbose
# sbt-clean-compile
# sbt-compile
# sbt-stage
# sbt-run

bash src/bash/aspark-starter/test-aspark-starter.sh

# now the tool will start producing output

# 2017-09-14 08:26:11      START test-aspark-starter test run report
#
# result  start-time  stop-time   action-name
#    ok    08:26:11 08:26:59 sbt-compile-verbose
#    ok    08:27:00 08:27:25 sbt-clean-compile
#    ok    08:27:25 08:27:34 sbt-compile
#    ok    08:27:35 08:27:49 sbt-stage
#    ok    08:27:49 08:27:59 sbt-run
```

2.7. Start hacking

Start hacking … or wait check at least the test call running all the functions of the tool …

```
# opionally if you are in the vim camp open the "project relative files list file"
vim meta/.dev.aspark-starter

# Ctrl + Z , to put it on the backgound
# check the actions to test ( uncoment line in include in test run )
less src/bash/aspark-starter/tests/run-aspark-starter-tests.lst

# Ctrl + Z to put in the background
# Action  !!! - aka now run the tests
bash src/bash/aspark-starter/test-aspar-starter.sh
```

2.7.1. Build and compile

Build and compile

```
bash src/bash/aspark-starter/aspark-starter.sh -a sbt-compile
```

2.7.2. Run the example

Run the example

```
bash src/bash/aspark-starter/aspark-starter.sh -a run-local-app
```

3. PROJECT STATUS

You could track the advancement of the project from the following url:
https://docs.google.com/spreadsheets/d/e/2PACX-1vR0wo5N32EpubwxBfeFxi6X-eOmXwOPg4WSyA4qBSz1Yu0EyU34jl0xICgWzrFUSeEA_aC4RF7LRqx9/pubhtml
Note that the content on the url is updated on project actual status update (i.e. meaningful work or milestones & tasks compppletion)

4. ADDITIONAL DOCUMENTATION

You can find the full installation and operations instructions in the docs/md dir of the project:

```
The UserStories:
https://github.com/YordanGeorgiev/aspark-starter/blob/master/doc/md/aspark-starter-user-stories.md
The Requirements:
https://github.com/YordanGeorgiev/aspark-starter/blob/master/doc/md/aspark-starter-requirements.md
The DevOps Guide:
https://github.com/YordanGeorgiev/aspark-starter/blob/master/doc/md/aspark-starter-devops-guide.md
The Features and Functionalities Description:
https://github.com/YordanGeorgiev/aspark-starter/blob/master/doc/md/aspark-starter-features-and-functionalities.md
```