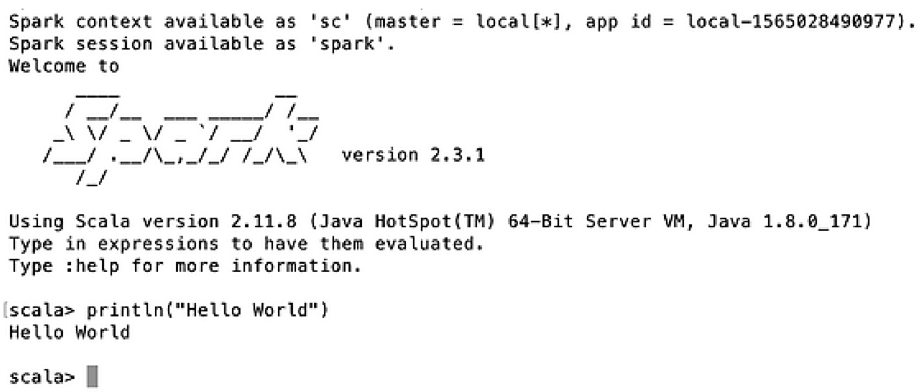
# Assignment 11

```
$ impala-shell -i localhost --quiet
Starting Impala Shell without Kerberos authentication
Welcome to the Impala shell. Press TAB twice to see a list of available commands.
...
(Shell
      build version: Impala Shell v3.4.x (hash) built on
      date)
[localhost:21000] > select version();
+-------------------------------------------
| version()
+-------------------------------------------
| impalad version ...
| Built on ...
+-------------------------------------------
[localhost:21000] > show databases;
+--------------------------+
| name                     |
+--------------------------+
| _impala_builtins         |
| ctas                     |
| d1                       |
| d2                       |
| d3                       |
| default                  |
| explain_plans            |
| external_table           |
| file_formats             |
| tpc                      |
+--------------------------+
[localhost:21000] > select current_database();
+--------------------+
| current_database() |
+--------------------+
| default            |
+--------------------+
[localhost:21000] > show tables;
+-------+
| name  |
+-------+
| ex_t  |
| t1    |
+-------+
[localhost:21000] > show tables in d3;

[localhost:21000] > show tables in tpc;
+------------------------+
| name                   |
+------------------------+
| city                   |
| customer               |
| customer_address       |
| customer_demographics  |
| household_demographics |
| item                   |
| promotion              |
| store                  |
| store2                 |
| store_sales            |
| ticket_view            |
| time_dim               |
| tpc_tables             |
+------------------------+
[localhost:21000] > show tables in tpc like 'customer*';
+-----------------------+
| name                  |
+-----------------------+
| customer              |
| customer_address      |
| customer_demographics |
+-----------------------+
```

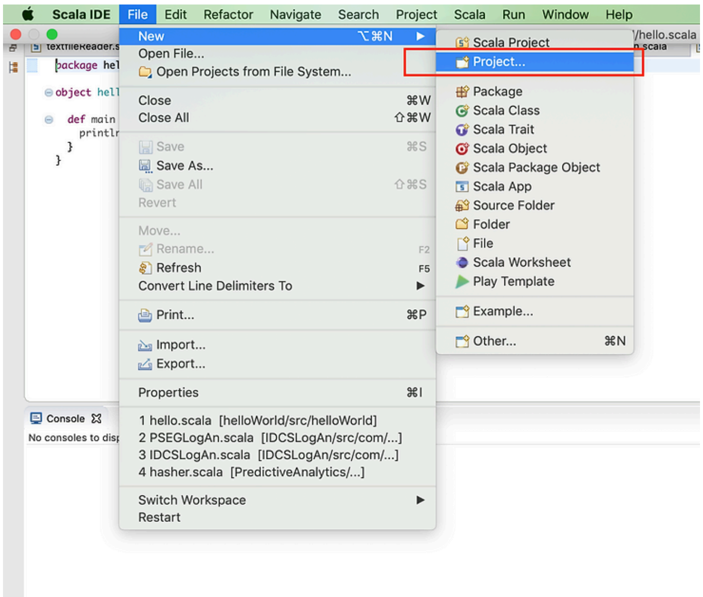
```
[localhost:21000] > use tpc;
[localhost:21000] > show tables like '*view*';
+-------------+
| name        |
+-------------+
| ticket_view |
+-------------+
[localhost:21000] > describe city;
+-------------+--------+---------+
| name        | type   | comment |
+-------------+--------+---------+
| id          | int    |         |
| name        | string |         |
| countrycode | string |         |
| district    | string |         |
| population  | int    |         |
+-------------+--------+---------+
[localhost:21000] > select count(*) from city;
+----------+
| count(*) |
+----------+
| 0        |
+----------+
[localhost:21000] > desc customer;
+------------------------+--------+---------+
| name                   | type   | comment |
+------------------------+--------+---------+
| c_customer_sk          | int    |         |
| c_customer_id          | string |         |
| c_current_cdemo_sk     | int    |         |
| c_current_hdemo_sk     | int    |         |
| c_current_addr_sk      | int    |         |
| c_first_shipto_date_sk | int    |         |
| c_first_sales_date_sk  | int    |         |
| c_salutation           | string |         |
| c_first_name           | string |         |
| c_last_name            | string |         |
| c_preferred_cust_flag  | string |         |
| c_birth_day            | int    |         |
| c_birth_month          | int    |         |
| c_birth_year           | int    |         |
| c_birth_country        | string |         |
| c_login                | string |         |
| c_email_address        | string |         |
| c_last_review_date     | string |         |
+------------------------+--------+---------+
[localhost:21000] > select count(*) from customer;
+----------+
| count(*) |
+----------+
| 100000   |
+----------+
[localhost:21000] > select count(distinct c_birth_month) from customer;
+-------------------------------+
| count(distinct c_birth_month) |
+-------------------------------+
| 12                            |
+-------------------------------+
[localhost:21000] > select count(*) from customer where c_email_address is null;
+----------+
| count(*) |
+----------+
| 0        |
+----------+
[localhost:21000] > select distinct c_salutation from customer limit 10;
+--------------+
| c_salutation |
+--------------+
| Mr.          |
| Ms.          |
| Dr.          |
|              |
| Miss         |
| Sir          |
| Mrs.         |
    +---------------+
[localhost:21000] > create database experiments;
[localhost:21000] > show databases;
+--------------------------+
| name                     |
+--------------------------+
| _impala_builtins         |
| ctas                     |
| d1                       |
| d2                       |
| d3                       |
| default                  |
| experiments              |
| explain_plans            |
| external_table           |
| file_formats             |
| tpc                      |
+--------------------------+
[localhost:21000] > show databases like 'exp*';
+---------------+
| name          |
+---------------+
| experiments   |
| explain_plans |
+---------------+
```

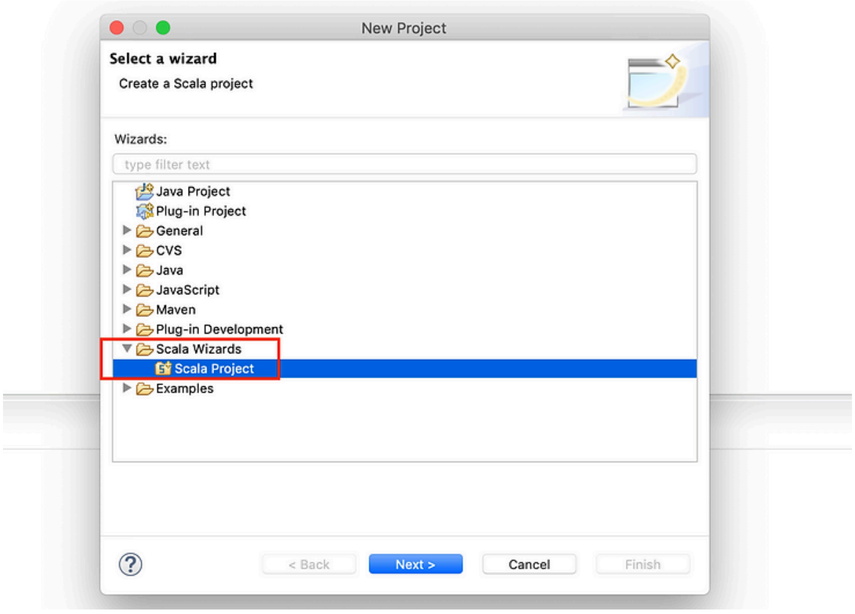
Assignment 12



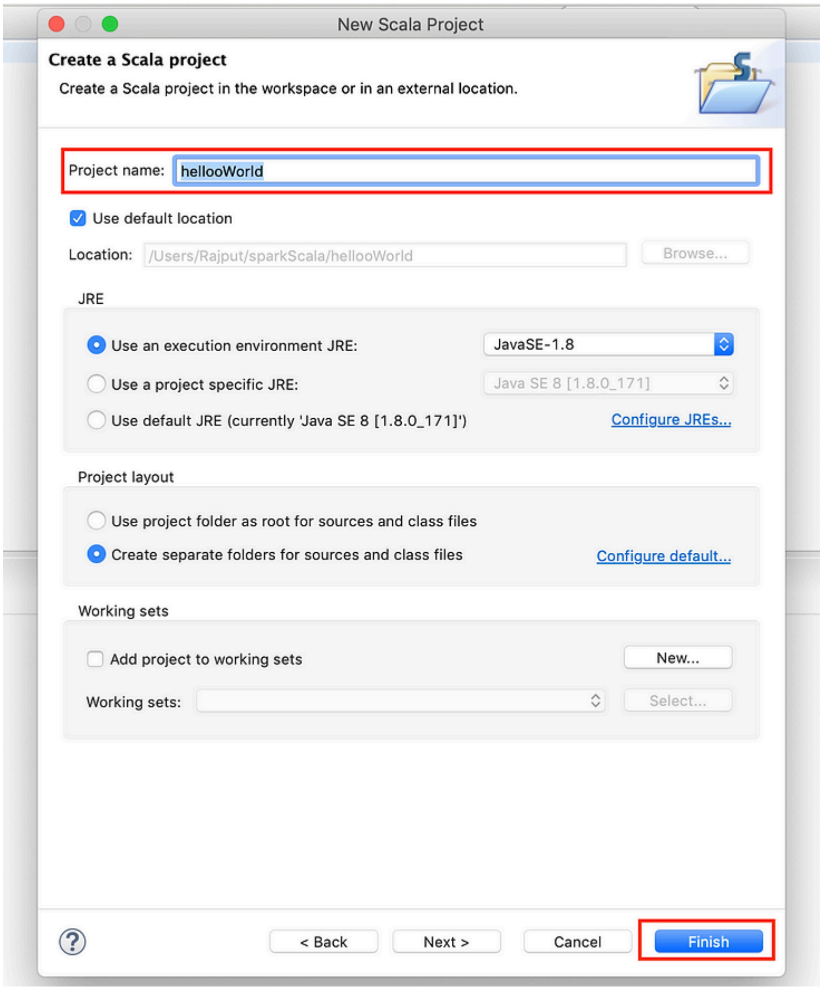
```
Spark context available as 'sc' (master = local[*], app id = local-1565028490977).
Spark session available as 'spark'.
Welcome to
      ____              __
     / __/__  ___ _____/ /__
    _\ \/ _ \/ _ `/ __/  '_/
   /___/ .__/\_,_/_/ /_/\_\   version 2.3.1
      /_/

Using Scala version 2.11.8 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_171)
Type in expressions to have them evaluated.
Type :help for more information.

scala> println("Hello World")
Hello World

scala> 
```

```
scala> // Hello WORLD WORLD - This is single line comment
scala> /* Hello World
| This is multi-line comment
| Data Nebulae
| */
```


Scala IDE File Edit Refactor Navigate Search Project Scala Run Window Help
New ⌥⌘N ▶
Open File...
Open Projects from File System...
Close ⌘W
Close All ⇧⌘W
Save ⌘S
Save As...
Save All ⇧⌘S
Revert
Move...
Rename... F2
Refresh F5
Convert Line Delimiters To ▶
Print... ⌘P
Import...
Export...
Properties ⌘I
1 hello.scala [helloWorld/src/helloWorld]
2 PSEGLogAn.scala [IDCSLogAn/src/com/...]
3 IDCSLogAn.scala [IDCSLogAn/src/com/...]
4 hasher.scala [PredictiveAnalytics/...]
Switch Workspace ▶
Restart
Scala Project
Project...
Package
Scala Class
Scala Trait
Scala Object
Scala Package Object
Scala App
Source Folder
Folder
File
Scala Worksheet
Play Template
Example...
Other... ⌘N
Console
No consoles to disp


New Project
Select a wizard
Create a Scala project
Wizards:
type filter text
Java Project
Plug-in Project
General
CVS
Java
JavaScript
Maven
Plug-in Development
Scala Wizards
Scala Project
Examples
?
< Back
Next >
Cancel
Finish

,



New Scala Project

**Create a Scala project**

Create a Scala project in the workspace or in an external location.

Project name: helloоWorld

☑ Use default location

Location: /Users/Rajput/sparkScala/hellooWorld

JRE

● Use an execution environment JRE: JavaSE-1.8

○ Use a project specific JRE: Java SE 8 [1.8.0_171]

○ Use default JRE (currently 'Java SE 8 [1.8.0_171]')

Project layout

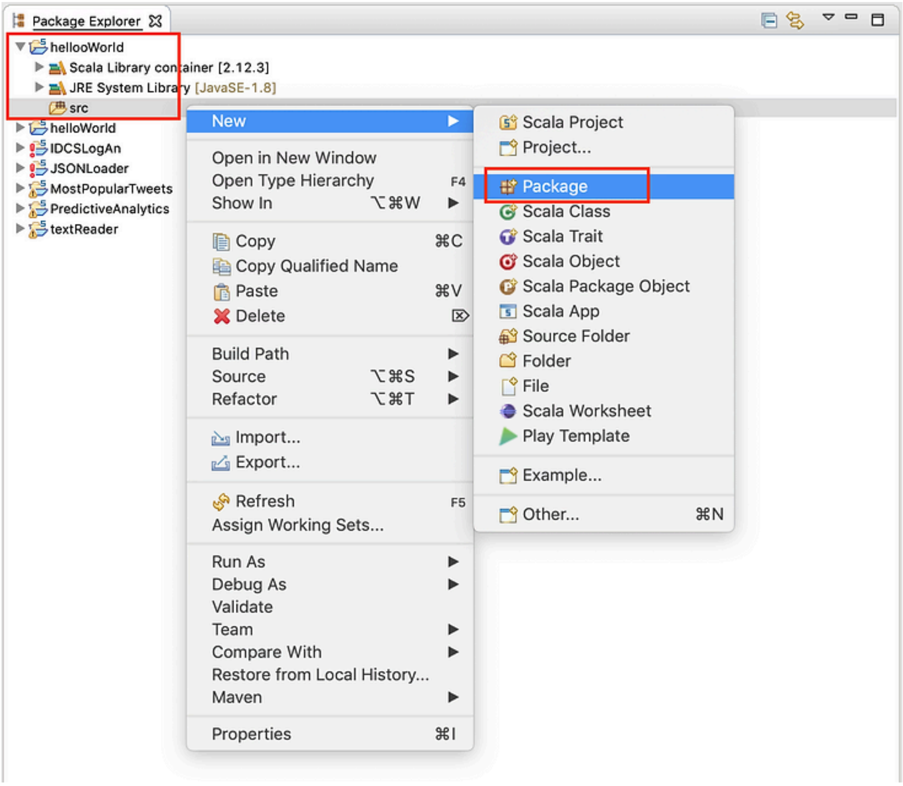
○ Use project folder as root for sources and class files

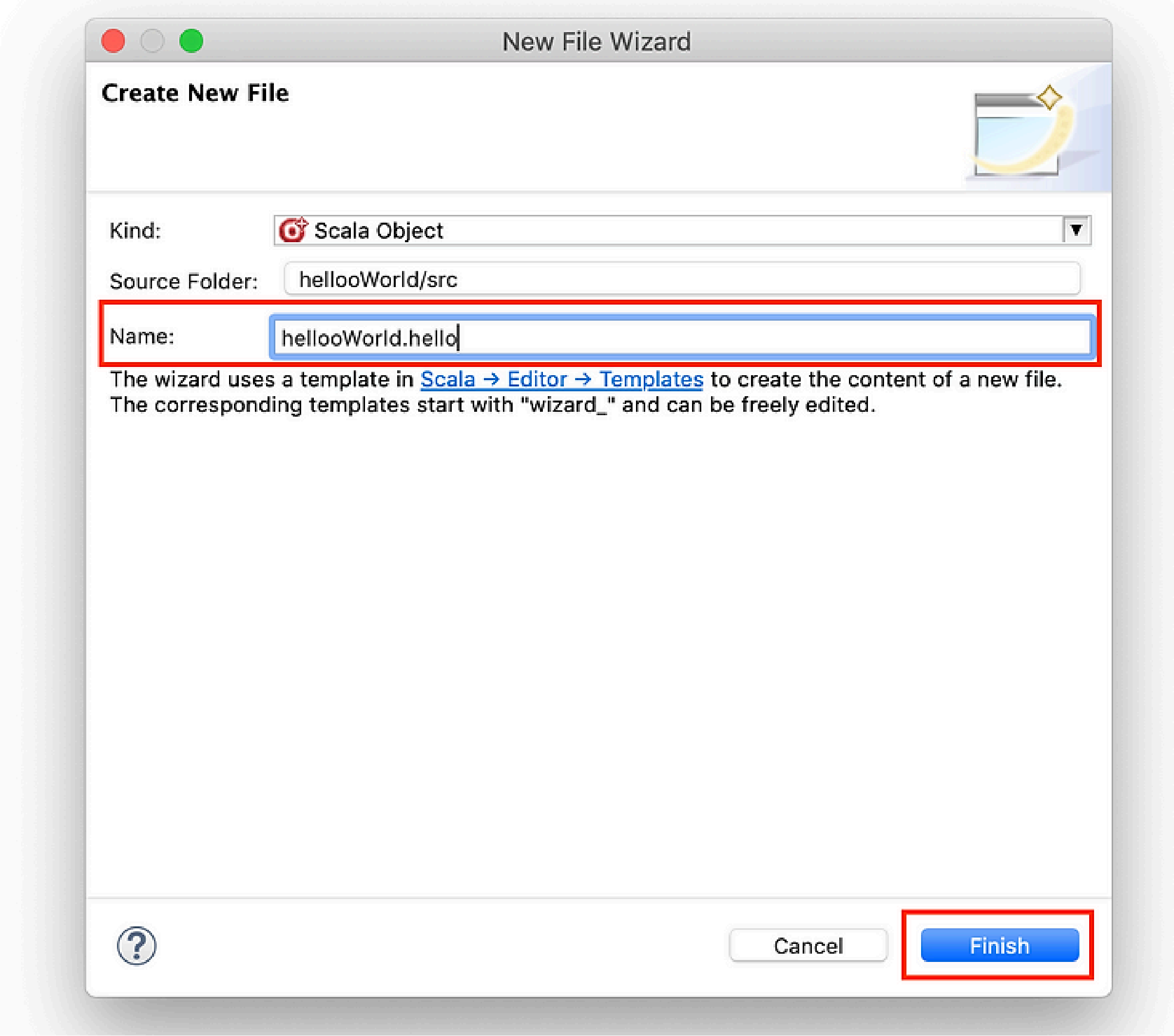
● Create separate folders for sources and class files

Working sets

□ Add project to working sets

Working sets:





Kind: Scala Object

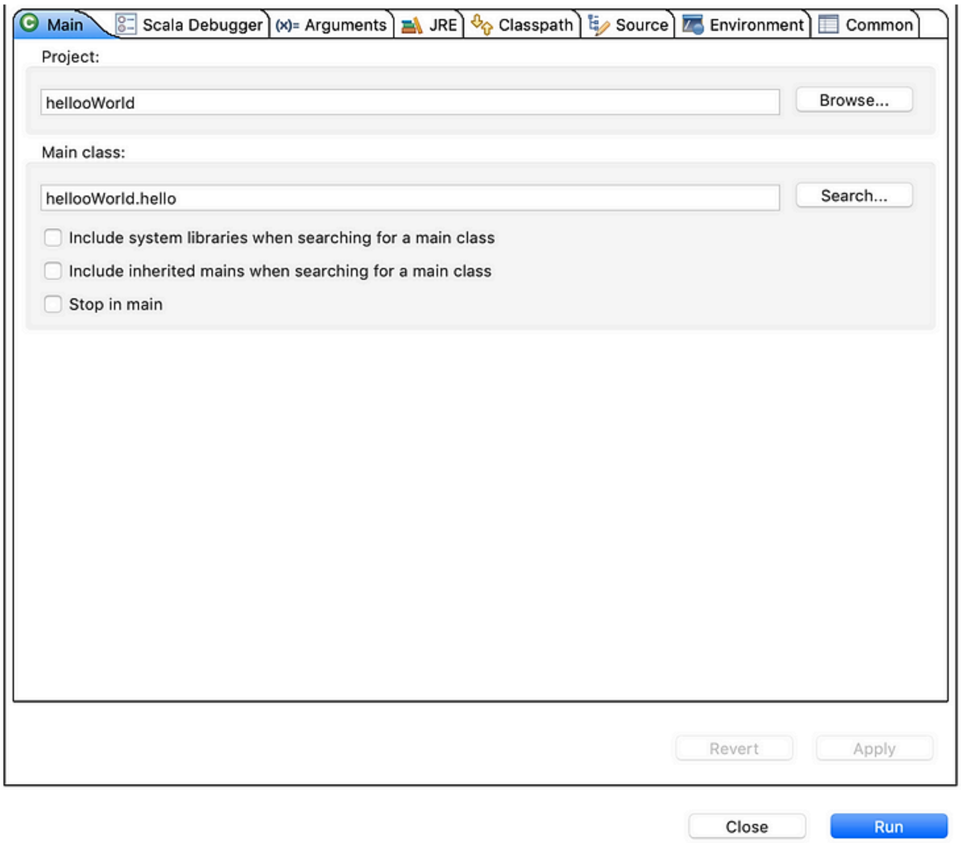
Source Folder: hellooWorld/src

Name: hellooWorld.hello

The wizard uses a template in Scala → Editor → Templates to create the content of a new file. The corresponding templates start with "wizard_" and can be freely edited.

Scala Hello World Program:

```
package hellooWorld
object hello {
 def main (args: Array[String]) {
   println("Hello World")
 }
}
```



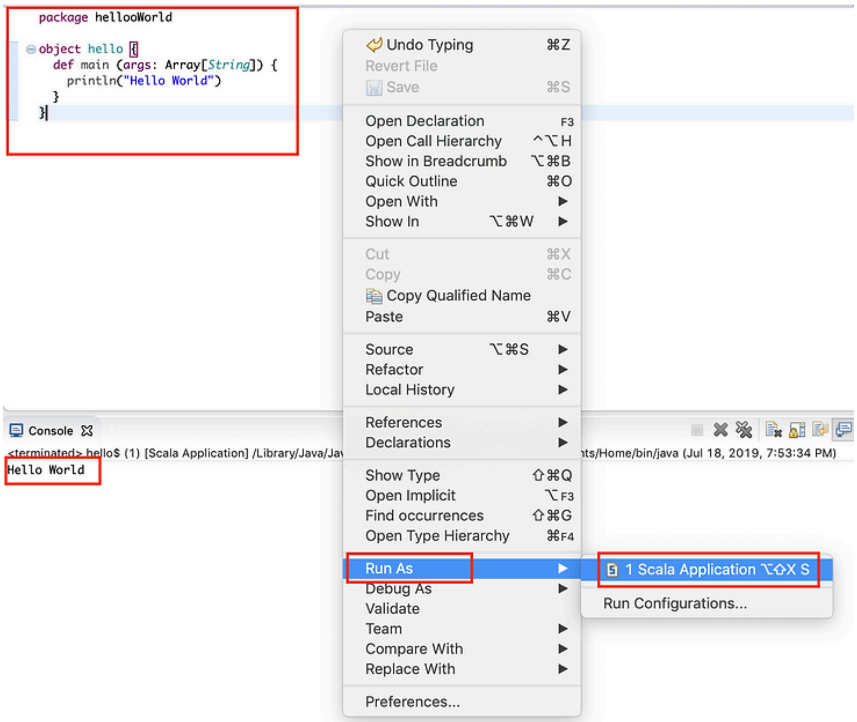
Project: helloоWorld

Main class: helloоWorld.hello

□ Include system libraries when searching for a main class

□ Include inherited mains when searching for a main class

□ Stop in main



```
package hellooWorld

object hello {
  def main (args: Array[String]) {
    println("Hello World")
  }
}
```

```
<terminated> hello$ (1) [Scala Application] /Library/Java/Ja…ts/Home/bin/java (Jul 18, 2019, 7:53:34 PM)
Hello World
```