

# Deloitte Away Day

Deloitte Away Day is a maven project to generate a day program to accommodate a list of activities.

## Author

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## Tech

Deloitte Away Day uses the following technologies:

- [Java] - Code base language (version 1.8)
- [Apache Maven] - Build automation tool (version 3.3.9)
- [junit] - Library for testing (version 4.12)
- [codehaus mojo] - Execute Java app plugin (version 1.6.0)

## Installation

Deloitte Away Day generates a day program based in an input file stored in the directory `src/main/resources/input.txt`.

These are the allowed formats for tasks:

Format	example
[task_name] [time_in_minutes]min	Docker master class 60min

Sprint is used for 15 minutes tasks. Find bellow an input example:

*Duck Herding 60min*

*Archery 45min*

*Learning Magic Tricks 40min*

*Laser Clay Shooting 60min*

*Human Table Football 30min*

*Buggy Driving 30min*

*Salsa & Pickles sprint*

*2-wheeled Segways 45min*

*Viking Axe Throwing 60min*

*Giant Puzzle Dinosaurs 30min*

*Giant Digital Graffiti 60min*

*Cricket 2020 60min*

*Wine Tasting sprint*

*Arduino Bonanza 30min*

*Digital Tresure Hunt 60min*

*Enigma Challenge 45min*

*Short speach 5min*

*Monti Carlo or Bust 60min*

*New Zealand Haka 30min*

*Time Tracker sprint*

*Indiano Drizzle 45min*

## Execution

Deloitte Away Day requires [Maven](#) v3+ and [Java](#) v1.8+ to run.

Open a terminal and execute these commands to compile and execute:

```
$ mvn clean package  
$ mvn exec:java
```

Output will be shown in the terminal. Find bellow an output example:

*Deloitte Away Day:*

*Team 1:*

*09:00 am : Duck Herding 60min*

*10:00 am : Laser Clay Shooting 60min*

*11:00 am : Viking Axe Throwing 60min*

*13:00 pm : Monti Carlo or Bust 60min*

*14:00 pm : Archery 45min*

*14:45 pm : 2-wheeled Segways 45min*

*15:30 pm : Enigma Challenge 45min*

*16:15 pm : Indiano Drizzle 45min*

*Team 2:*

*09:00 am : Giant Digital Graffiti 60min*

*10:00 am : Cricket 2020 60min*

*11:00 am : Digital Tresure Hunt 60min*

*13:00 pm : Learning Magic Tricks 40min*

*13:40 pm : Human Table Football 30min*

*14:10 pm : Buggy Driving 30min*

14:40 pm : Giant Puzzle Dinosaurs 30min

15:10 pm : Arduino Bonanza 30min

15:40 pm : New Zealand Haka 30min

16:10 pm : Salsa & Pickles sprint

16:25 pm : Wine Tasting sprint

16:40 pm : Time Tracker sprint

16:55 pm : Short speech 5min

## Design

These are the main classes used in this project:

### ***uk.deloitte.digital.model***

Task: *Class to store a task data (name, duration). Start time is calculated using a LocalTime.*

ActivityBlock: *Class to store a list of task and a maximum size. Methods to calculate the available and used size and to add a task (returning true if the task fits correctly) are included.*

ExtraTimeBlock: *ActivityBlock extended class including an extratime. Available size method overwritten to manage extra time.*

DayProgram: *Class to store a morning ActivityBlock and an evening ExtraTimeBlock. Morning and evening start and finish date can be configured (configuration is validated). Methods to include tasks into both blocks are included.*

AwayDay: *Class to store a list of DayProgram. Morning and evening start and finish time, extra time for evening and number of teams can be configured (configuration is validated). Also a method to add a list of tasks is included.*

## ***uk.deloitte.digital.file***

FileUtil: *Class with a method for reading a list of tasks from a file (specific format).*

## ***uk.deloitte.digital.exception***

AwayDayException: *Returned exception when a functional or execution error occurs*