DDAD_Assignment

Deloitte Digital Away Day is a Java application to generate the teams' schedule for the given set of activities for the day.

Developed By

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Tech Stack

1. Java 1.8
2. Apache Maven 3.6.0
3. Junit 4.12
4. slf4j + log4j 1.7.25

Project Setup

DDAD Assignment generates the teams' schedule for the given set of activities based on the input file located at src\main\resources\activities.txt

The activities in activities.txt are as per the given format:

[activity_name] [time]min

[activity_name] sprint

Sprint is used for 15 minutes activities.

Example activities list:

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

Monti Carlo or Bust 60min

New Zealand Haka 30min

Time Tracker sprint

Indiano Drizzle 45min

Log setup is based on the file located at src\main\resources\log4j.properties

Example Log Setup:

 # Set root logger level to DEBUG and its only appender to A1.

log4j.rootLogger=DEBUG, A1

A1 is set to be a ConsoleAppender.

log4j.appender.A1=org.apache.log4j.ConsoleAppender

A1 uses PatternLayout.

log4j.appender.A1.layout=org.apache.log4j.PatternLayout

log4j.appender.A1.layout.ConversionPattern=%-4r [%t] %-5p %c %x - %m%n

Other Generic activities like 'lunch break' and 'Staff Motivation Presentation' activities along with their duration details are listed in src\main\resources\assignment.properrties

Example properties content:

#to add Generic Activities in addition to the input tasks

brkTask=Lunch Break (minimum)

brkDuration=60

smpTask=Staff Motivation Presentation

smpDuration = 60

Design Details:

com.deloitte.assignment.main	App.java	This is the main method to start the application.
com.deloitte.assignment.file	FileUtils.java	This class has methods for reading the list of activities & reading the properties file contents.
com.deloitte.assignment.model	ActivitySlot.java	This class has the methods to calculate the available and used time slots of the sessions. This also has the method to add activities into the sessions.
com.deloitte.assignment.model	DayProgram.java	This class has the Morning and Evening Session Schedules. It has the methods to include the activities into the sessions.
com.deloitte.assignment.model	TeamOutSchedule.java	This class has the list of Schedule generation code based on the start & end times of the activities. Start time is calculated using the LocalTime.
com.deloitte.assignment.vo	AdditionalTimeSlot.java	This is extended from the ActivitySlot class. Available size method is overwritten to manage the extra time.
com.deloitte.assignment.vo	Task.java	This is the class to store a task name and duration.
com.deloitte.assignment.exception	TeamOutExeception.java	This exception is thrown when a functional or execution error occurs.

Build and Deployment

C:\team_outing>mvn clean package

C:\team_outing>mvn exec:java

Output

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Deloitte Digital Away Day Schedule:

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Team 1:

09:00 am : Duck Herding 60min

10:00 am : Laser Clay Shooting 60min

11:00 am : Viking Axe Throwing 60min

12:00 pm : Lunch Break (minimum) 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

17:00 pm : Staff Motivation Presentation 60min

Team 2:

09:00 am : Giant Digital Graffiti 60min

10:00 am : Cricket 2020 60min

11:00 am : Digital Tresure Hunt 60min

12:00 pm : Lunch Break (minimum) 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 : Staff Motivation Presentation 60min