Learning Jasmine Marbles Basics

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Module Overview

Marble Diagrams

Jasmine Marbles Library

Set up Test Project

Marble Syntaxes

Marble Diagrams

"A picture is worth ten thousand words"

Fred R. Barnard

Observable Sequences and their values can be visually drawn by Marble Diagrams over timeline

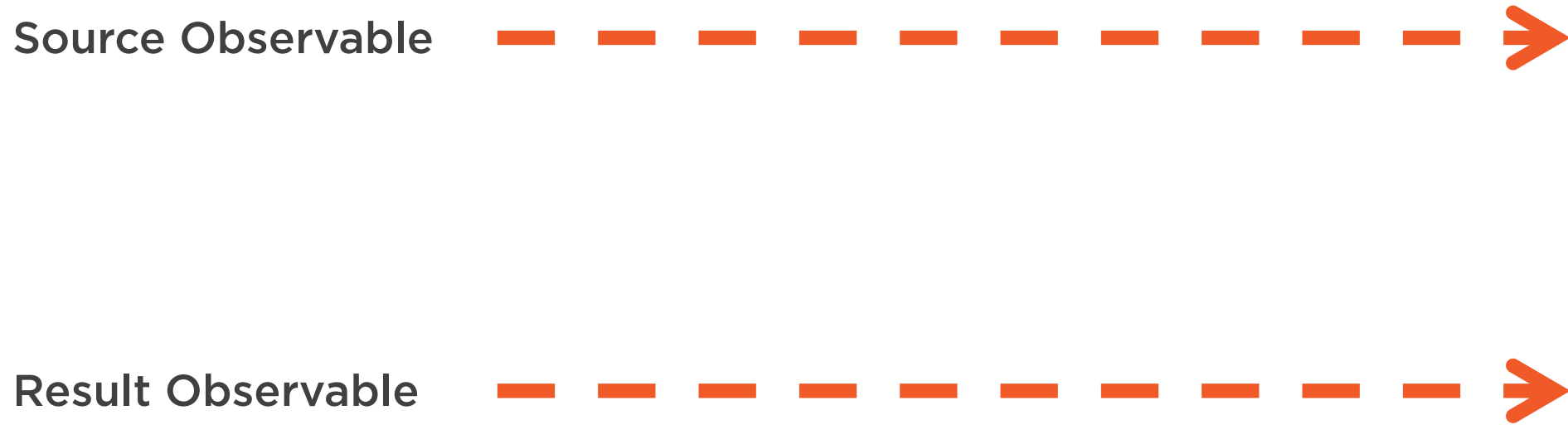# Timeline

List of Events

Labeled with Events

Linear Scale

Timeline in RxJS

Source Observable — — — — — — — — — — ➤

Result Observable — — — — — — — — — ➤

Marble Diagram Symbols

Marble

Value emitted by Observable

Complete

Completion of sequence

Error

Error in sequence

Observing Maggie Timeline

2018 born

3rd week open her eyes and ears
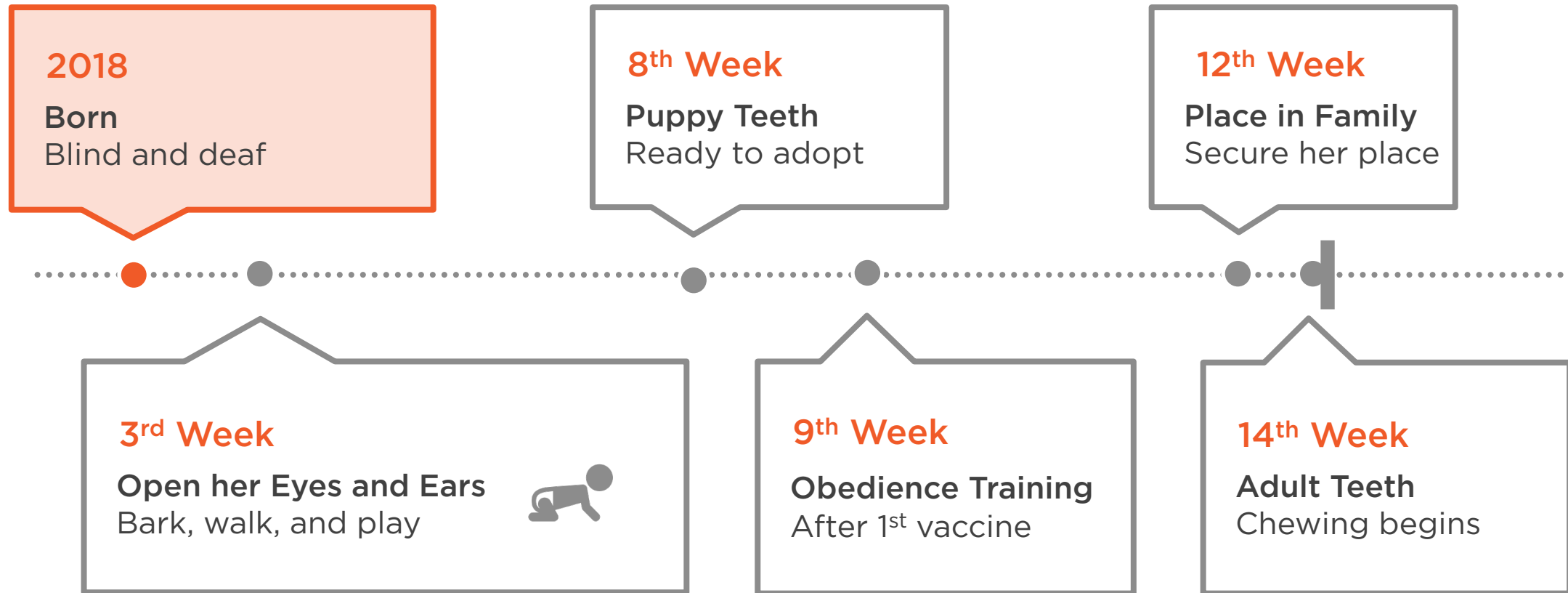
8th week puppy teeth

9th week obedience training

12th week place in family

14th week adult teeth

Maggie Timeline of Events

2018
Born
Blind and deaf

3rd Week
Open her Eyes and Ears
Bark, walk, and play

8th Week
Puppy Teeth
Ready to adopt

9th Week
Obedience Training
After 1st vaccine

12th Week
Place in Family
Secure her place

14th Week
Adult Teeth
Chewing begins

Emit 3 Values and Complete

Emit 2 Values and Error

Jasmine Marbles

Jasmine Marbles

It is a node package that integrates with RxJS Scheduler and allows us to assert the behavior of observables and operators synchronously

https://www.npmjs.com/package/jasmine-marbles

npm   🔍 Search packages

Share your code.   npm Orgs help your team discover, share, and reuse code. Create a free org »

jasmine-marbles

0.4.0 • Public • Published a month ago

| Readme | 1 Dependencies | 3 Dependents | 7 V |

jasmine-marbles

Marble testing helpers for RxJS and Jasmine

Helpful Links

- Marble Syntax
- Providing Mock Actions for testing ngrx Actions with jasmine-marbles

install

```
> npm i jasmine-marbles
```

⬇ weekly downloads

39,518

version

0.4.0

license

MIT

npm i -d jasmine-marbles

Installing Jasmine Marbles

By running above script install jasmine marbles on dev dependencies

Why Jasmine Marbles

Visual Testing

Synchronous Testing

Supports Jasmine Framework

Mocks Observables

Virtual Time

Custom Matcher

Methods of Jasmine Marbles

hot

cold

toBeObservable

toHaveSubscriptions

Set up Your Test Project

Steps to Set up Demo App

Select An Editor

Install Node

Download Demo App GitHub

Selecting Editor

Visual Studio Code

Sublime Text

Atom Editor

WebStorm

Visual Studio

VS Code

Learning More

Pluralsight

- Visual Studio Code by John Papa

https://app.pluralsight.com/library/courses/visual-studio-code/table-of-contents

Installing Node

npm install npm -g

Updating npm

By running above script we update npm

https://github.com/roopkt/
UnitTesting-RxJS-Marble-
Diagrams

GitHub Repository

Sample Angular application used in the "Unit Testing RxJS with Marble Diagrams" course.

⊙ 2 commits	ꝑ 1 branch	◯ 0 releases	👥 1 contributor

Branch: master ▾   New pull request   Find file   Clone or download ▾

roopkt adding projects   Latest commit e9ed9df on Nov 1

📁 UM-Final	adding projects	a month ago
📁 UM-Start	adding projects	a month ago
📄 .gitignore	adding projects	a month ago
📄 README.md	first commit	a month ago

📖 README.md

Unit Testing RxJS with Marble Diagrams

Materials for the "Unit Testing RxJS with Marble Diagrams" course on Pluralsight.

UM-Start: The starter files set up for use in VSCode, WebStorm, or other editors. Use this to code along with the course. (Updated for Angular version 6 or higher)

UM-Final: The completed files. Use this to see the completed solution from the course. (Updated for Angular version 6 or higher)

GitHub Repository

Releases Tags   Draft a new release

Latest release

🏷 1

⦵ 21039ba

UM-Start

👤 **roopkt** released this 4 minutes ago

✕ **Assets** 2

📄 **Source code** (zip)

📄 **Source code** (tar.gz)

Edit

Please use this release in order to code along with pluralsight course as a starter project. I have upgraded the Angular to version `7` .

Once cloned at your local box go to the UM-Start and run `npm i` then run `npm start` to see application and run `npm test` to see test cases running in watch mode.

Demo

Setup Project

Marble Syntax

Time Frame

- - - - - - - - - - - - - -

Moves from left to right

Starts with 0 frame

Each frame is counted as 10 frames

One frame is 10 milliseconds of time

Maximum 740 frames

Frame Count

0   10   20   30   40

Time Elapsed in Milliseconds

10   20   30   40   50

Marble Syntax

— Time, each frame represents 10 milliseconds of time

| The successful completion of an observable

An error terminating the observable

Marble Syntax

∧ Subscription point to the hot observable

! Unsubscription point at which a subscription is unsubscribed

a Any character value being emitted by the producer

Marble Syntax

( )

Emit a single grouped value on same time frame

EMPTY

emits no items but terminates normally

"-" or "----"

NEVER
emits no items and does not terminate

Demo

Writing First Test

Summary

Marble Diagrams

Jasmine Marbles Node Package

Set up Demo Testing Project

Marble Testing Syntaxes
  - Wrote First Unit Test