

---

**Mathinator**

---

**Mathinator**  
**Software Architecture Document**

**Version <1.1>**

<Project Name>	Version: <1.0>
Software Architecture Document	Date: <28/11/2016>

## Revision History

Date	Version	Description	Author
<28/11/2016>	<1.0>	<Creation of the SAD>	<Lamm, Hug, Saupp>
<27/12/2016>	<1.1>	<Adapt the Technology + Database Diagram>	<Lamm, Hug, Saupp>

<Project Name>	Version: <1.0>
Software Architecture Document	Date: <28/11/2016>

## Table of Contents

1.Introduction	4
1.1Purpose	4
1.2Scope	4
1.3Definitions, Acronyms, and Abbreviations	4
1.4References	4
1.5Overview	4
2.Architectural Representation	5
3.Architectural Goals and Constraints	5
4.Use-Case View	5
5.Logical View	6
6.Process View	6
7.Deployment View	6
8.Implementation View	6
9.Data View (optional)	6
10.Size and Performance	6
11.Quality	6

<Project Name>	Version: <1.0>
Software Architecture Document	Date: <28/11/2016>

# Software Architecture Document

## 1. Introduction

### 1.1 Purpose

This document provides a comprehensive architectural overview of the system, using a number of different architectural views to depict different aspects of the system. It is intended to capture and convey the significant architectural decisions which have been made on the system.

### 1.2 Scope

The scope of this SAD is to provide the architecture of the Mathinator project. Affected are the class structure, our use-cases and the

### 1.3 Definitions, Acronyms, and Abbreviations

### 1.4 References

Document	Where to find?
Blog	<a href="https://mathinator.tobiaslamm.de">https://mathinator.tobiaslamm.de</a>
Github	<a href="https://github.com/SaschaHug/Mathinator">https://github.com/SaschaHug/Mathinator</a>
Use Case 1 "take a picture"	<a href="https://github.com/SaschaHug/Mathinator/blob/master/1_UC_Mathinator_Take_A_Picture.pdf">https://github.com/SaschaHug/Mathinator/blob/master/1_UC_Mathinator_Take_A_Picture.pdf</a>
Use Case 2 "view history"	<a href="https://github.com/SaschaHug/Mathinator/blob/master/2_UC_Mathinator_View_History.pdf">https://github.com/SaschaHug/Mathinator/blob/master/2_UC_Mathinator_View_History.pdf</a>
Use Case 3 "show tour on first start"	
Use Case 4 "enable user to delete entries"	
Use Case 5 "do manual calculations"	

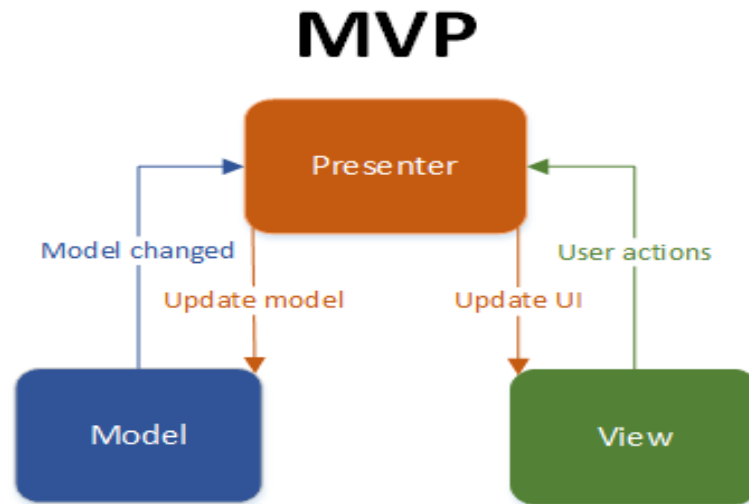
### 1.5 Overview

The rest of the document is separated into ten different chapters.

Chapter 2 will describe what software architecture is for the current system, and how is represented. Chapter 3 will cover the software requirements and objectives that have some significant impact on the architecture. Chapter 4 lists use cases/scenarios from the use-case model which have significant impact on the architecture itself. Chapter 5 describes the architecturally significant parts of the design model, such as its parts Controller and Model. Chapter 9 is a description of the persistent data storage perspective of the system.

<Project Name>	Version: <1.0>
Software Architecture Document	Date: <28/11/2016>

## 2. Architectural Representation



## 3. Architectural Goals and Constraints

In Android you don't have MVC, but you have the following:

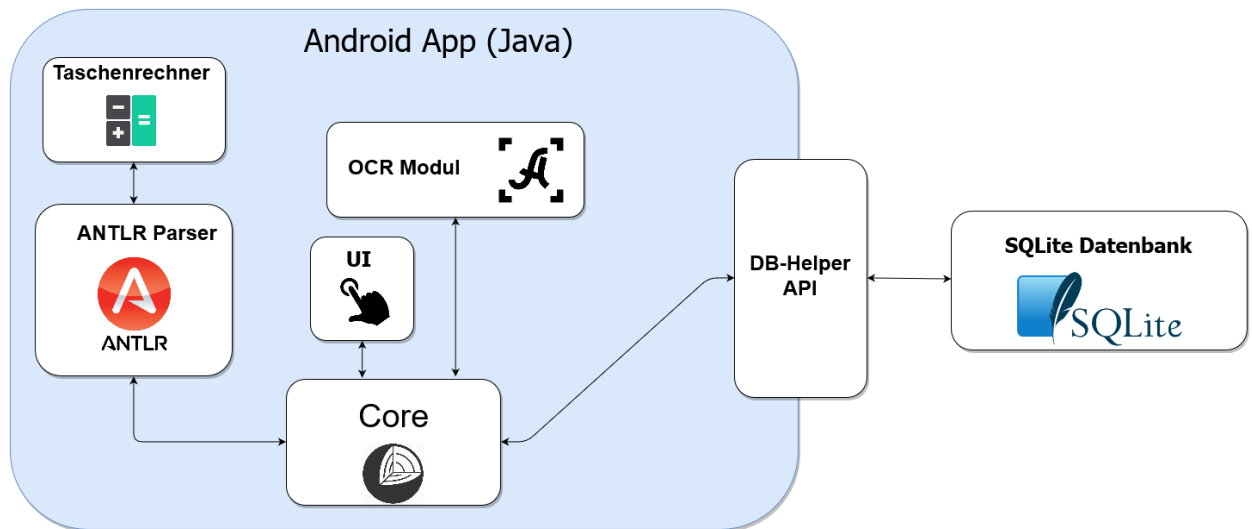
- You define your user interface in various XML files by resolution, hardware, etc.
- You define your resources in various XML files by locale, etc.
- You extend classes like ListActivity, TabActivity and make use of the XML file by inflaters.
- You can create as many classes as you wish for your business logic.
- A lot of Utils have been already written for you - DatabaseUtils, Html.

## 4. Use-Case View

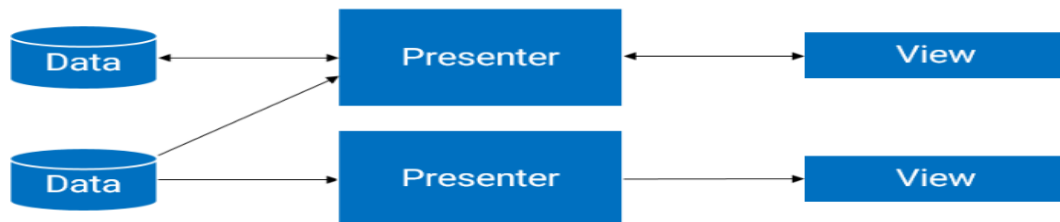
n/a

<Project Name>	Version: <1.0>
Software Architecture Document	Date: <28/11/2016>

## 5. Logical View



Description



## 6. Process View

n/a

## 7. Deployment View

n/a

## 8. Implementation View

n/a

## 9. Data View (optional)

To be determined

## 10. Size and Performance

n/a

## 11. Quality

n/a