Data Analysis Project
P0: Project Idea
(Group 11)

Edi Zeqiri and Ugur Turhal

University of Basel
Databases (CS244) course
Autumn Semester 2022

1 Introduction

1.1 Idea: Accidents

One of the main dominant factors in traffic accidents is speed. Not only are vehicles getting faster but also easier to drive as car producers are switching their arsenal mainly from manual to automatic. In the last few years swiss roads have drasticly reduced the legal speeds to protect pedestrians and other participants on the road. We want to investigate the result of these actions.

2 Datasets

2.1 Geschwindigkeitsmonitoring: Einzelmmessung bis 2020

- Source: Dataset 1
- Name: 100097
- Size: 2'559'791'756 bytes
- Format: CSV

2.2 Geschwindigkeitsmonitoring: Einzelmmessung ab 2021

- Name: 100200
- Source:Dataset 2
- Size: 3'050'206'951 bytes
- Format: CSV

2.3 Strassenverkehrsunfälle

- Name: 100120
- Source:Dataset 3
- Size: 4´2019664´2019895 bytes
- Format: CSV

3 Analysis Goals

Our goal is to analyze how reducing legal speeds on public roads changed the accident rate. Obviously reducing speeds will with no doubt reduce risk as reaction time increases, but this is as easy as analyzing muscle growth with exercise. We will try to analyze why some roads have more accidents than others and if reducing the speed would help or if other factors are involved.
The main question which we want to answer is: Is speed reduction always the first solution we should consider or are there any better solution which would help the speed of traffic and reducing the risk of participating in daily commutes?

Since we have the coordinates of the streets we will visualize our data accordingly.

4 Tools

We plan to use the following tools:

1. Python3
2. MySQL
3. Docker