# **SQL** Report: Your title goes here

#### Your Name

### January 2021

An abstract is absolutely not necessary and you can simply drop or comment this part. Alternatively, you can use it to place your contact details:

student-id 1234567 e-mail mail@example.com

### 1 Temperature indices

#### 1.1 SQL code

An overview of temperature indices was implemented using a VIEW as defined in lising 1

Listing 1: create statement for view

1 SELECT
2 \* changes data view

#### 1.2 discuss

In the next paragraph discuss the differences between the Postgres and R solution for calculating temperature indices. Name a few advantages **and** disadvantages for both solutions.

# 2 Verify results

Compare your SQL calculated indices to the R calculated indices. Do they differ and if they do, why?

# 3 Spatial variability

Describe the variability of your sensor compared to the others this year. You might also want to place some citations. Check out the comments in the source main.tex for the commands. If you want to cite your HOBO report here, add an bibliography entry to the bibliography.bib like:

```
@article{hobo,
    author={Bar Foo},
    year=2021,
    journal={Data collection, -management, -visualization lecture},
    title={HOBO Report}
}
```

You can cite it with the \citep{hobo} command (Foo, 2021).

## 4 Indices across time and space

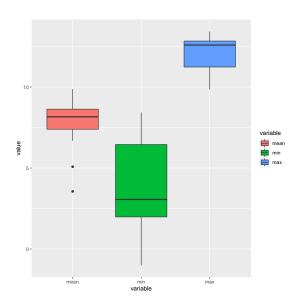


Figure 1: Boxplot of the mean, minimum and maximum hourly, quality checked air temperature in Freiburg on Christmas eve. The data was taken from 52 different locations in 2019, 2020 and 2021. Original measurements were taken with an onset HOBO temperature data logger.

This last section should focus on the question how this years' measurements compare to the last few years. For this, you are asked to produce a number of graphs. The best practice is to generate PDF graphics and include them directly here. The necessary commands are already loaded in this template.

You can even automate your workflow further and run your scripts producing the PDFs in this repository, saving them to the './figures/' subfolder. This will refresh the figures in the report whenever, your scripts overwrite them (Fig 1).

The figure above can be included like:

```
\begin{figure}[ht] \centering
```

\includegraphics[width=.5\textwidth]{./figures/example\_analysis} \caption{Boxplot of the mean, minimum and maximum hourly, quality checked air temperature in Freiburg on Christmas eve. The data was taken from 52 different locations in 2019, 2020 and 2021. Original measurements were taken with an onset HOBO temperature data logger.} \label{fig:first\_figure}

\end{figure}

## References

 ${\bf B.\ Foo.\ Hobo\ report.}\ {\it Data\ collection,\ -management,\ -visualization\ lecture,\ 2021.}$