

Skigebiet

Meilenstein 1: Anforderungsanalyse & Konzeptioneller Entwurf

This Model describes the organisation of the Ski Resort.

We have Countries (ID, Name, State) with Mountains (ID, Name and Height). One country can have many mountains. Also we have many Hotels (ID, Name, Street name, PLZ and City) in each country.

Each country can have many Ski Resorts (ID, Description) but ski resort is unique for one country. It has different Lifts (ID, Type, Qty) and Slopes (ID, Type, Length) that can only exist within the ski resort.

Mountain Rescue (ID, Type, Phone number) can be presented in many ski resorts and one ski resort can have different Rescue Services. Mountain Rescue is being regulated by itself.

Many Skischools (ID, Name, Street name, PLZ, City) can work in one ski resort but the skischool can work only in one ski resort. Each ski school has Workers (SVNr., Name, Family name, Employment) that can be either Trainer (ID, Qualification) or Office worker (ID).

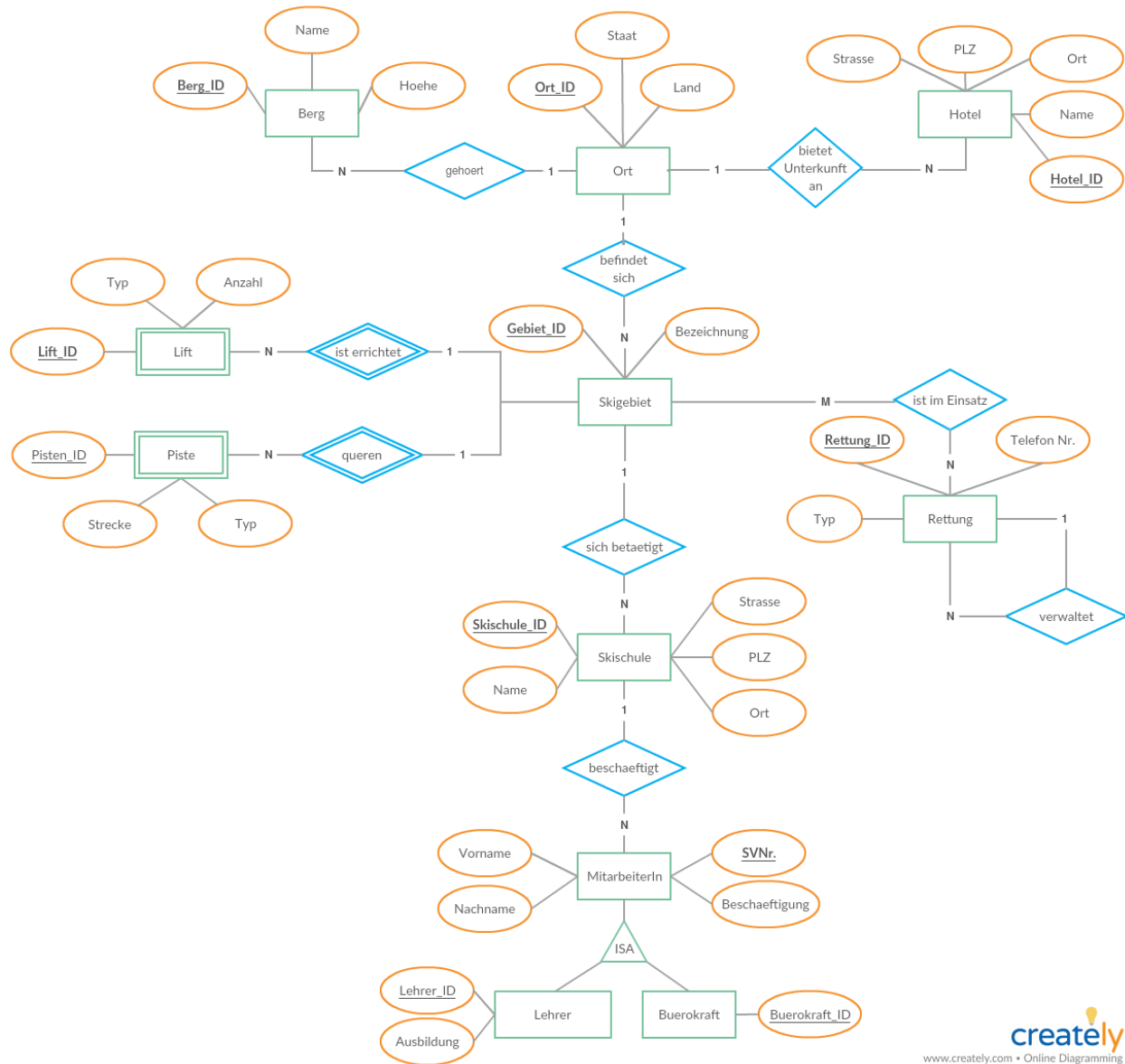


Abbildung 1: Entity Relationship Diagramm

Meilenstein 2: Logischer Entwurf

Ort (Ort_ID, Staat, Land)

PK: Ort_ID

Berg (Berg_ID, Name, Hoehe, Ort_ID)

PK: Berg_ID

FK: Ort_ID \diamond Ort

Hotel (Hotel_ID, Name, Strasse, PLZ, Ort, Ort_ID)

PK: Hotel_ID

FK: Ort_ID \diamond Ort

Skigebiet (Gebiet_ID, Bezeichnung, Ort_ID)

PK: Gebiet_ID

FK: Ort_ID \diamond Ort

Lift (Lift_ID, Typ, Anzahl, Gebiet_ID)

PK: Lift_ID

FK: Gebiet_ID \diamond Skigebiet

Piste (Pisten_ID, Typ, Strecke, Gebiet_ID)

PK: Pisten_ID

FK: Gebiet_ID \diamond Skigebiet

Rettung (Rettung_ID, Typ, TelefonNr, Verwaltung_ID)

PK: Rettung_ID

FK: Verwaltung_ID \diamond Rettung

Einsatz (Gebiet_ID, Rettung_ID)

PK: Gebiet_ID, Rettung_ID

Skischule (Skischule_ID, Name, Strasse, PLZ, Ort, Gebiet_ID)

PK: Skischule_ID

FK: Gebiet_ID \diamond Skigebiet

MitarbeiterIn (SVNr, Vorname, Nachname, Beschaeftigung, Skischule_ID)

PK: SVNr

FK: Skischule_ID \diamond Skischule

Lehrer (SVNr, Lehrer_ID, Ausbildung)

PK: SVNr, Lehrer_ID

FK: SVNr \diamond MitarbeiterIn

Buerokraft (SVNr, Buerokraft_ID)

PK: SVNr, Buerokraft_ID

FK: SVNr \diamond MitarbeiterIn

Meilenstein 4: Implementierung

Java Implementierung

Java code is mainly based on loop constructions to generate hundreds and thousands of data rows and insert them into tables. This way it is easy to check the consistency of the data insert. Also it is easy to change the quantity of the generated data.

```
a1247560@almighty:~/public_html$ javac -classpath ojdbc14.jar:. TestDataGenerator.java
a1247560@almighty:~/public_html$ java -classpath ojdbc14.jar:. TestDataGenerator
Number of test datasets in Ort: 1
Number of datasets in Ort: 451
Number of datasets in Berg: 450
Number of datasets in Hotel: 450
Number of datasets in Skigebiet: 450
Number of datasets in Lift: 1800
Number of datasets in Piste: 1800
Number of datasets in Rettung: 451
Number of datasets in Einsatz: 450
Number of datasets in Skischule: 450
Number of datasets in MitarbeiterIn: 4500
Number of datasets in Lehrer: 3600
Number of datasets in Buerokraft: 900
a1247560@almighty:~/public_html$
```

Screenshot 1: Test Data Generator

PHP Implementierung

Most of the tables are presented on their own webpages and have a possibility to make a search for exact entry using Name, City or Country Name as search parameter. Most tables are combined from 2 tables and different related data is extracted.

One php page consolidates 4 tables (Ort, Skigebiet, Lift, Piste, Skischule) and represents summary information about Ski Resort. It is also possible to add information about new skischool or delete existing skischool.

[Zurück](#)

Ischgl

Tirol, AT

Lifte

Typ	Anzahl
Schlepplifte	13
Sessellifte	25
Kabinenbahn	4
Pendelbahn	3

Piste

Typ	Strecke, km
Leicht	39
Mittel	150
Schwer	34
Freeride	15

Skischule

Name	Adresse
Skischule Ischgl KG	Silvrettaplatz 2, 6561 Ischgl 

Eine neue Skischule hinzufügen:

Screenshot 2: Consolidated page