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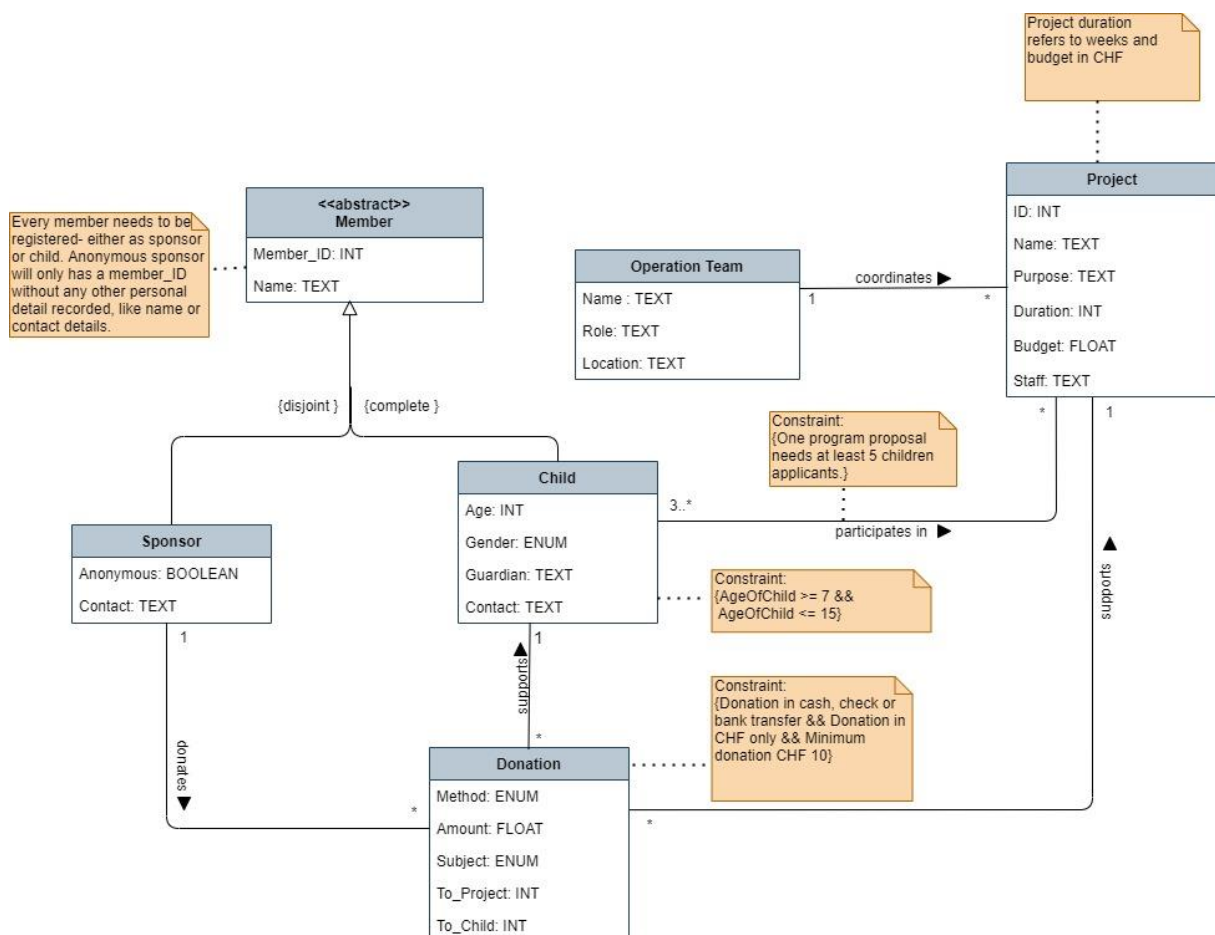
Non-profitable Children Charity

There are different projects for children-in-need on support of donations. Children need to be at the age between 7 and 15 years old.

Registered children can join in as many projects at the same time to get the help they need. A new program proposal needs at least 3 interested applicants to be considered and evaluated. In case some needs are not covered by running projects, individual sponsorship by a sponsor is also possible.

The Operation team bookkeeps the finance, coordinates applications and registrations, organizes activities to inform sponsors of on-going project, and raise fund for future ones.

A sponsor can register himself anonymously or with personal details. To keep the amount tracked , all donations need to be made through either in cash at counter, by check or by bank transfer. The minimum amount of a single donation is CHF 10 .



Vererbung: Abbildungsregel 3b)

- Die Vererbung ist {disjoint} somit kann Abbildungsregel 3b) gewählt werden
- Mit 3b) haben wir eine übersichtliche Lösung, die einfache Zugriffe auf Tabellen erlauben (Infos sind alle direkt in Tabelle enthalten)
- Es gibt wenig gemeinsame Attribute (ID, Name – wobei ID generiert) somit kann Semantikverlust in Kauf genommen werden
- Zwischen «child» und «sponsor» gibt es nur eine indirekte Assoziation über «donation» (die Primary Keys werden über serial generiert), somit sehen wir da kein Problem wegen Anomalien
- Da doch einige Attribute bei Subklassen vorhanden sind, wird nicht die Variante c) gewählt, da es viele NULL-Werte in der Superklasse gegeben hätte

Relationales Modell in relationales Schreibweise

```
team (  
  name VARCHAR (30) PRIMARY KEY,  
  role VARCHAR (20) NOT NULL,  
  location VARCHAR (40) NOT NULL  
);
```

```
project(  
  id SERIAL PRIMARY KEY,  
  full_name VARCHAR (30) NOT NULL,  
  purpose VARCHAR (30),  
  duration INTEGER,  
  budget FLOAT NOT NULL,  
  staff VARCHAR (30) REFERENCES team  
);
```

```
sponsor (  
  id SERIAL PRIMARY KEY,  
  name VARCHAR(30),  
  anonymous BOOLEAN NOT NULL,  
  contact VARCHAR(100)  
);
```

```
child (  
  id SERIAL PRIMARY KEY,  
  name VARCHAR(30) NOT NULL,  
  age INTEGER NOT NULL,  
  gender ENUM('male', 'female', 'x') NOT NULL,  
  guardian VARCHAR(30) NOT NULL,  
  contact VARCHAR(20) NOT NULL  
);
```

```
child_project (  
  child_id INTEGER NOT NULL REFERENCES child,  
  project_id INTEGER NOT NULL REFERENCES project  
);
```

```
donation (  
  id SERIAL PRIMARY KEY,  
  method ENUM('cash', 'check', 'bank_transfer') NOT NULL,  
  amount FLOAT NOT NULL,  
  sponsor INTEGER NOT NULL REFERENCES sponsor,  
  donation_subject ENUM('child', 'project') NOT NULL,  
  to_child INTEGER REFERENCES child,  
  to_project INTEGER REFERENCES project,  
);
```