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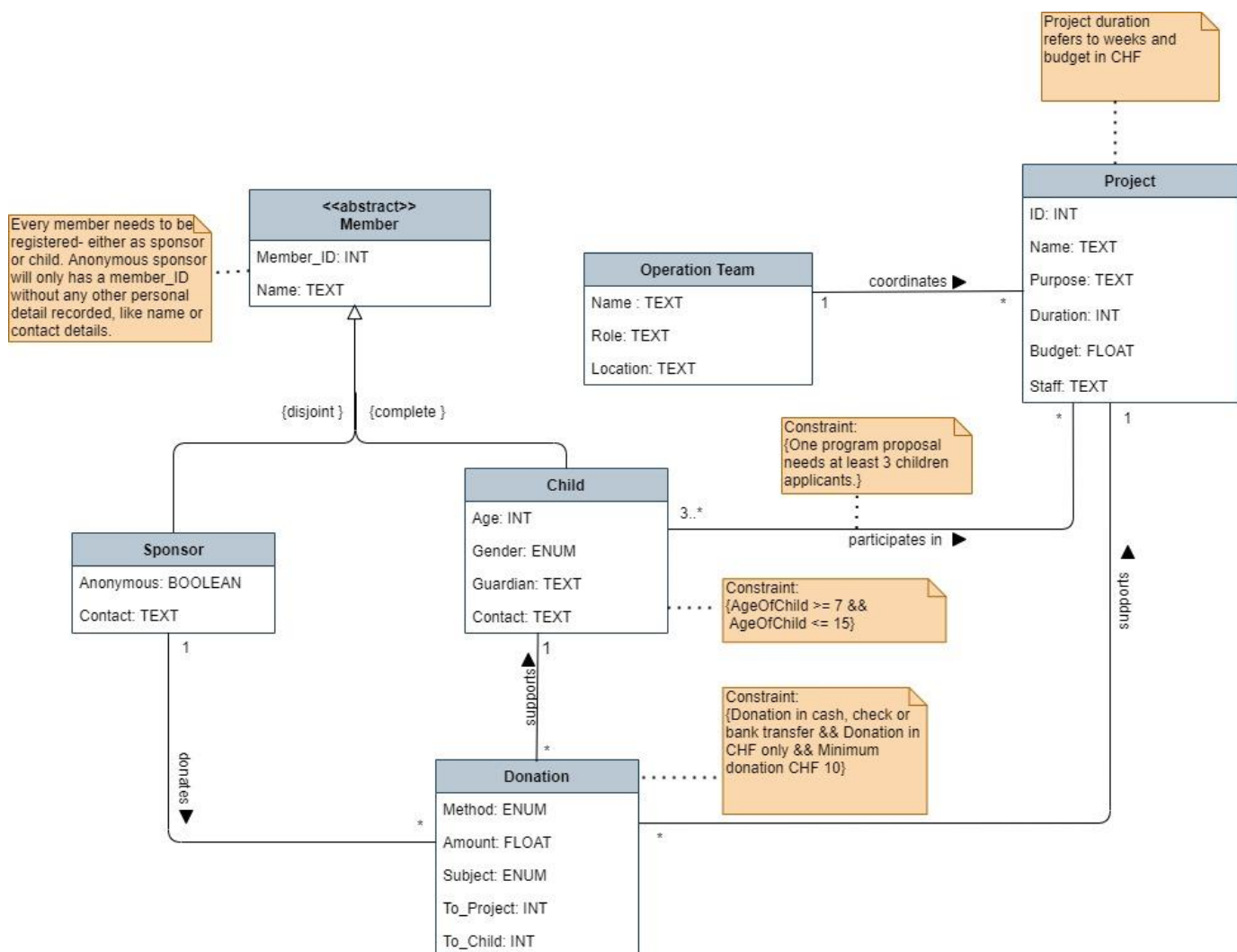
Non-profitable Children Charity

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

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

```
child (  
  id INTEGER 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 INTEGER 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,  
);
```