## DATABASE TABLE DESIGN

#### **Authentication**

Member\_id FK (Member\_Details)

Username PK

Password VARCHAR(20) NOT NULL

Check (length(Password) >=10

#### **Trips**

Trip ID (INT) AUTO INCREMENT PK

Trip Name VARCHAR(50) NOT NULL

Start Date DATE

Group size (INT) NOT NULL

### Member\_Details

Member\_id (INT) AUTO\_INCREMENT PK

Member name VARCHAR(50) NOT NULL

Email VARCHAR(50) NOT NULL

#### **Costs**

Trip\_id FK (Trips)

Flights\_total FLOAT(10) DEFAULT 0 NOT NULL

Accomodation\_total FLOAT(10) DEFAULT 0 NOT NULL

Transfers total FLOAT(10) DEFAULT 0 NOT NULL

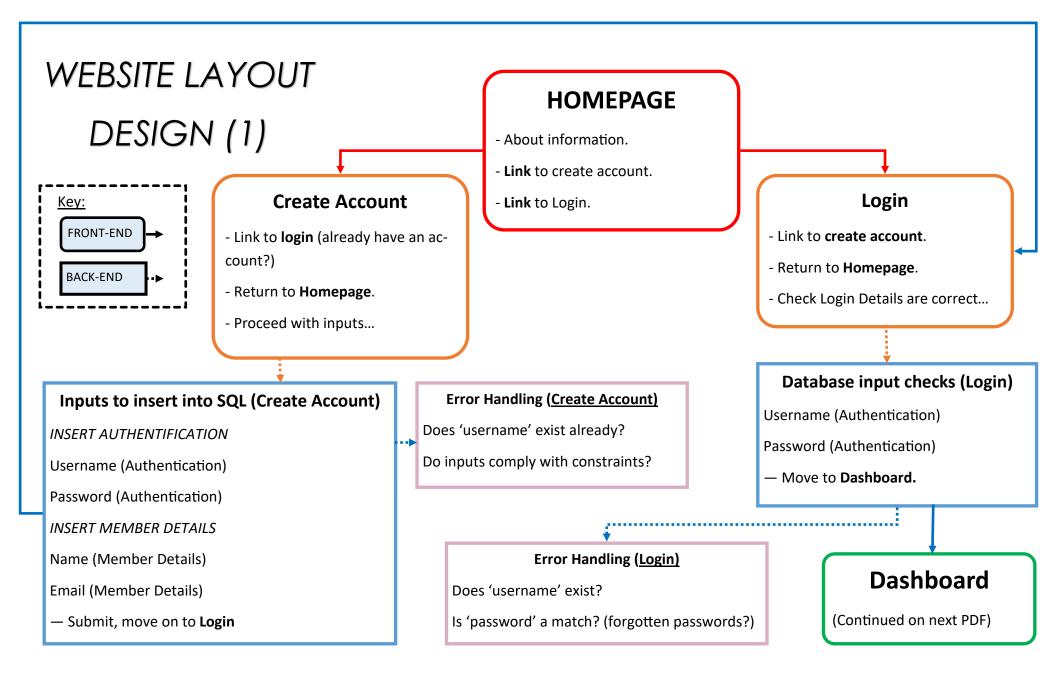
Activities\_total FLOAT(10) DEFAULT 0 NOT NULL

#### **Contributions**

Trip\_id FK (Trips)

Member\_id FK (Member\_Details)

Total FLOAT(10) DEFAULT 0 NOT NULL



Example 1: www.budgetbuddy.com/

# WEBSITE LAYOUT DESIGN (2)

## DASHBOARD

- Log out (Return to **Homepage**).
- Overview of trips (can be clicked into).
- Imbed link to each 'trip\_name'
- Option to add new trip.

#### **Add New Trip**

- Option to return to **Dashboard.**
- Proceed with inputs...

# Key: FRONT-END → BACK-END

#### **Database Queries (Dashboard)**

'Trip\_name' / 'member\_id' (Trip/member\_details join)

'Start\_date' (Trips)

(repeat per trip attached to member\_id)

Submit — Move to 'Trip Name'

## 'Trip\_Name'

(Continued on next PDF)

#### Inputs to insert to SQL (Add New Trip)

**INSERT TRIPS** 

Trip name\* (Trips)

Start Date\* (Trips)

Group Size\* (Trips)

**INSERT COSTS** 

Flights Total (Costs)

Accommodation Total (Costs)

Transfers Total (Costs)

**Activities Total (Costs)** 

Miscellaneous Total (Costs)

**INSERT CONTRIBUTIONS** 

Total Contributions (Contributions default 0)

Submit — Move to **Dashboard** 

#### Error Handling (Add New Trip)

Ensure all the values are inputted within their correct constraints (Value errors etc).

#### Behind the scenes (Add New Trip)

Ensure the Trips table has values inserted first, then take foreign key trip\_id to add to the insert of the costs. Same for Contributions table (no user input though)).

Example 2: www.budgetbuddy.com/dashboard

## 'Trip\_Name'

- Option to return to Dashboard.
- Countdown to trip.
- Total Cost.
- Costs Breakdown.
- Total Contributions.
- Contributions Breakdown.
- Imbed link to Add Contribution.

# WEBSITE LAYOUT DESIGN (3)

#### **Database Queries ('Trip\_Name')**

Start Date (Trips) Countdown

Sum all Costs (Costs)

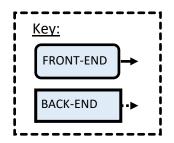
Individual Cost (Sum costs/group size (Trips and Costs join))

Sum Contributions (Contributions, Group By trip\_id)

Individual Contribution (Contribution, member\_id)

Group remaining contributions (sum costs—sum contributions)

Individual remaining contributions (individual cost—contribution)



#### **Add Contribution**

- Option to return to **Dashboard.**
- Proceed with inputs...

#### Inputs to insert into SQL

(Add Contributions)

**UPDATE CONTRIBUTIONS** 

Set Total = Total + user input

Submit — Move to 'Trip\_Name'

#### Behind the scenes (Add Contribution)

Ensure the member\_id id and trip\_id are added coorectly (WHERE member\_id = X and trip\_id = Y)

#### **Error Handling (Add Contribution)**

Ensure all the values are inputted within their correct constraints (Value errors).