# Campus Mate

Second Presentation

#### Use cases

You are at a nice location and want to save it

#### Start screen



Tap to remember your location...

View all locations >

Quickly remember a new location





Add a photo (either take a new one or from camera roll)

| Cancel       | .de 🗢 13:08 🖌                   | * 100%   |
|--------------|---------------------------------|----------|
| Add<br>Photo | GPS Info:<br>51.0504N, 13.6923W | <b>ô</b> |
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| Descrip      | tion                            |          |
| Category     |                                 |          |
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|              |                                 |          |

- Add a photo (either take a new one or from camera roll)
- Re-adjust geo information to your current location

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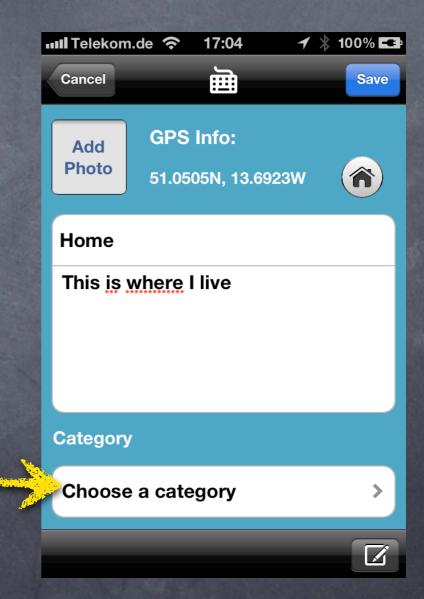
- Add a photo (either take a new one or from camera roll)
- Re-adjust geo information to your current location
- Enter a name and description

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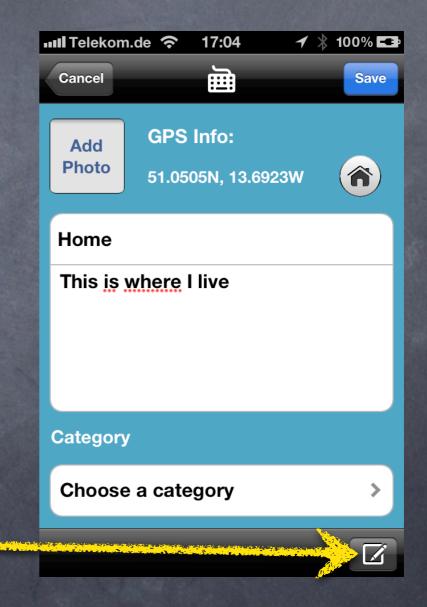
- Add a photo (either take a new one or from camera roll)
- Re-adjust geo information to your current location
- Enter a name and description
- Resign the keyboard after you are done typing

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- Add a photo (either take a new one or from camera roll)
- Re-adjust geo information to your current location
- Enter a name and description
- Resign the keyboard after you are done typing
- Choose a category



- Add a photo (either take a new one or from camera roll)
- Re-adjust geo information to your current location
- Enter a name and description
- Resign the keyboard after you are done typing
- Choose a category
- Share the location (eMail or Twitter)



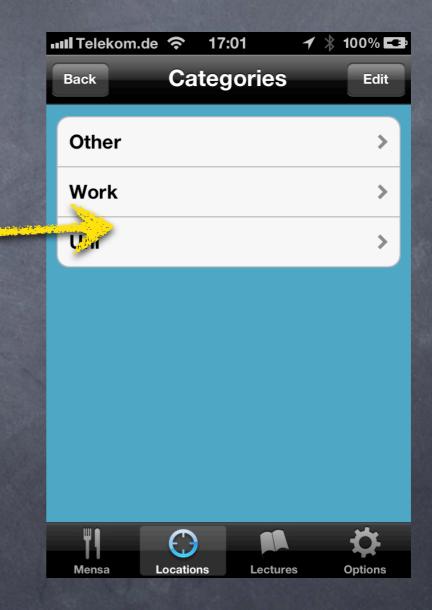
# Choose a category

• Go back without any assigning

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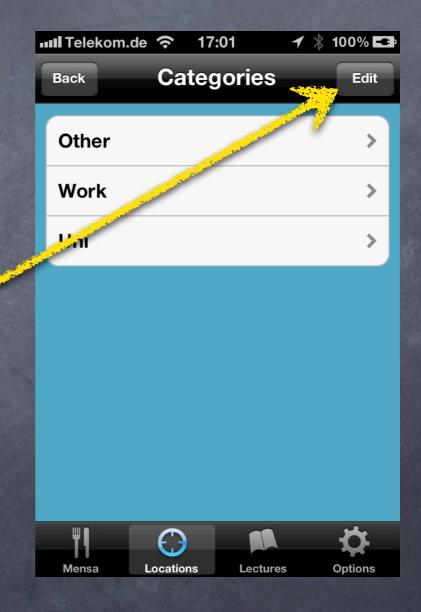
# Choose a category

- Go back without any assigning
- Choose an existing category by tapping on the row



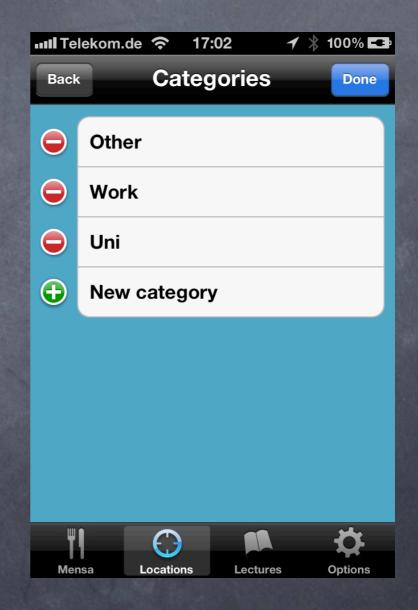
# Manage categories

- Go back without any assigning
- Choose an existing category by tapping on the row
- Tap edit to delete, add or edit an existing category



# Manage categories

- Go back without any assigning
- Choose an existing category by tapping on the row
- Tap edit to delete, add or edit an existing category



• Cancel without a change

| 💵 Telekom.de 🔶 | 17:02      | ◀ ∦ | 100% 💶 |
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| Cancel         | Category   |     | Save   |
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- Cancel without a change
- Add or edit a name

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|                     | XCVB        | NM 💌       |
| 123                 | Leerzeichen | Return     |

- Cancel without a change
- Add or edit a name

• Choose a (different) color

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|----------------------------|----------|
| Cancel Category            | Save     |
| Name                       |          |
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| 123   Leerzeichen          | Return   |

### Choose a color

• Go back without any change

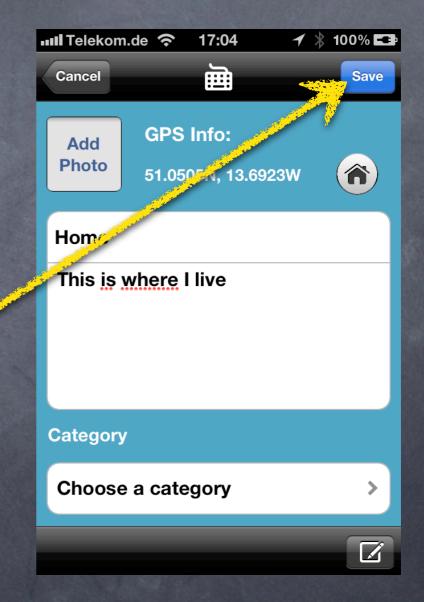
• Choose a color

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| Mensa       | Location   | s Le   | ectures | Options  |

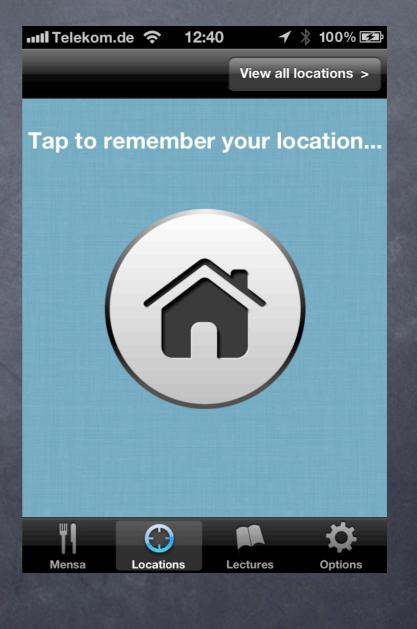
- Cancel without a change
- Add or edit a name
- Choose a (different) color
- Save the changes

| IIII Telekom.de | <b>?</b> 17:03 | ┥ ∦ 100% 💶 |
|-----------------|----------------|------------|
| Cancel          | Category       | Save       |
| Name            |                |            |
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| 123             | Leerzeichen    | Return     |

- Add a photo (either take a new one or from camera roll)
- Re-adjust geo information to your current location
- Enter a name and description
- Resign the keyboard after you are done typing
- Choose a category
- Save the location



### Start screen



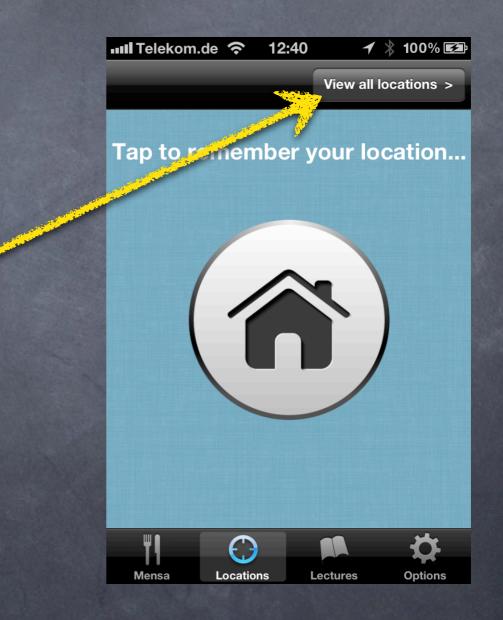
• Done ;-)

#### Use cases

You are at a nice location and want to save it

You want to view all your saved locations on a map

#### Start screen



• View all your saved locations

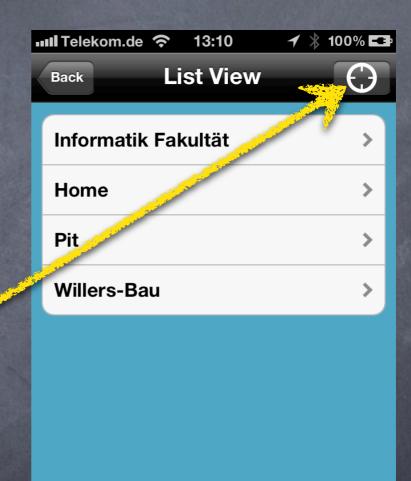
## View locations as a list

 Choose a location to come to the detail view of that location where you can edit its information

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| Mensa       | Locations    | Lectures | Options    |

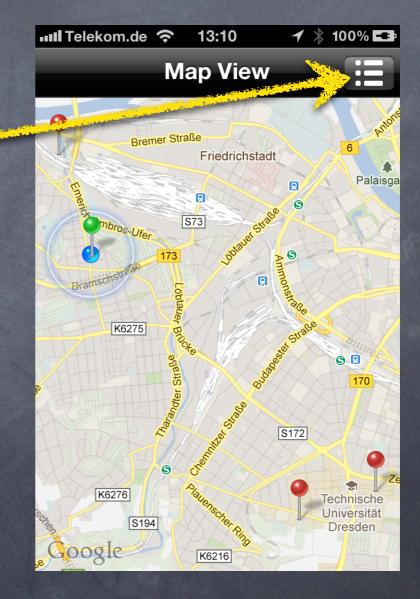
## View locations as a list

- Choose a location to come to the detail view of that location where you can edit its information
- Tap on the upper right button to bring the map view to the front

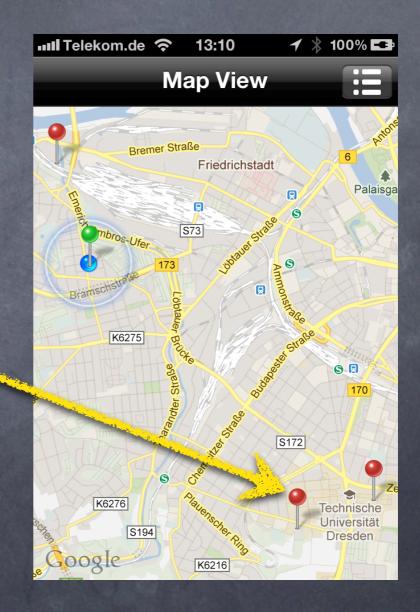




 Tap on the upper right button to switch back to list view



- Tap on the upper right button to switch to list view
- Tap on a pin to bring up its annotation



- Tap on the upper right button to switch to list view
- Tap on a pin to bring up its annotation



- Tap on the upper right button to switch to list view
- Tap on a pin to bring up its annotation
- The little arrow button brings up the corresponding detail view



#### Use cases

You are at a nice location and want to save it

You want to view all your saved locations on a map

You like to change the number of locations on the map

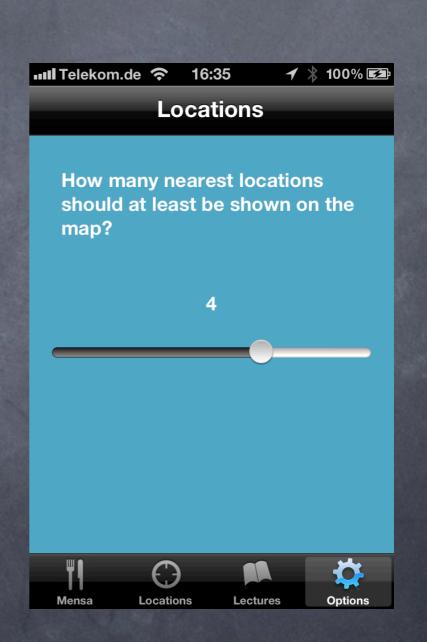
## Options module

 You can specify how many locations you want to see in map view



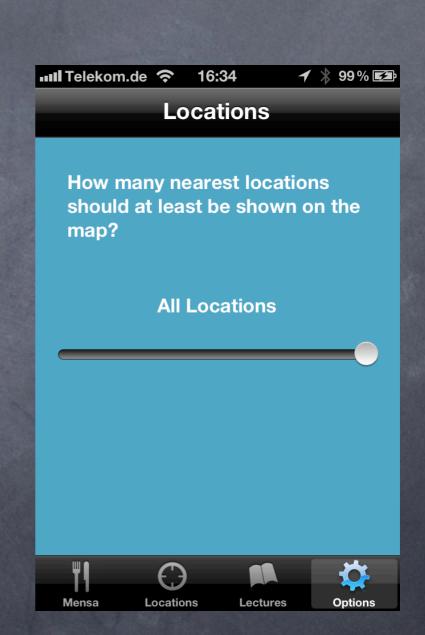
## Options module

- You can specify how many locations he wants to see in map view
- The slider allows all values from zero to the number of your saved locations



## Options module

- You can specify how many locations he wants to see in map view
- The slider allows all values from zero to the number of your saved locations
- And additionally "All Locations" which always sets the number of locations to max



# Technologies

• Core Data

• Core Location

• 3DAR-Toolkit

• Twitter

#### Core Data

required for persistence
 allows to keep data between sessions / app crashes

|                 | LocationOptions  |                  |
|-----------------|------------------|------------------|
|                 | Attributes       |                  |
|                 | nearestLocations |                  |
|                 | showAllLocations |                  |
|                 | Relationships    |                  |
|                 | descr            | LocationCategory |
|                 | latitude         | Attributes       |
| LocationInfo    | longitude        | color            |
| Attributes      | picture          | name             |
| name            | Relationships    | Relationships    |
|                 |                  |                  |
| T Relationships | category <       | >detail          |

### Core Location

- In the framework exists a location manager
- sends location updates to its delegate (my location controller)
- the latest update is saved and can be accessed from everywhere in the app via a singleton pattern

# Challenges

#### • Usability

• Ressource restriction

• Heterogeneity

# Usability

Many small things like:

• Resign keyboard button

• memorizable icons

• . . .

custom TextField with placeholder text

#### Resource restriction

- fetching only the name from the database to scroll through the locations (should be performant even with thousands of locations)
- small display with only very few information per screen
- Mensa module still open (scraping info from website)

## Heterogeneity

 different views on the same data: list view and map view of the locations – augmented reality to come ...

 different user preferences: options module, page view with one page for every module

# Open tasks



• eMail, Twitter

Augmented reality view of the locations

• Mensa module