Document Generals

- This Doc. describes the functionality of the "Our Workout" - App.
- It also provides Mockups and sketches of the App design
- It will grow over time
- Ideas for future implentations will be marked in the colour green

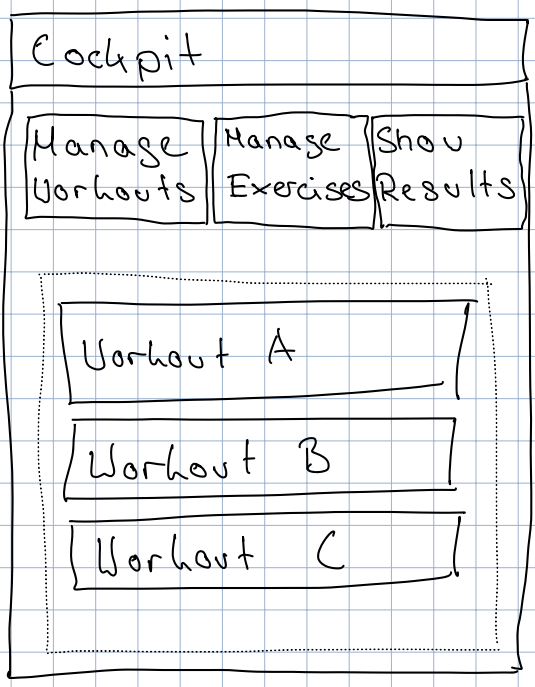
Version History

Version	Summary
0.1	First basic functionalities and Design Manage Workouts; Manage Excersises;
0.1.1	Refine App-Layout Add Data-Classes for exercises and workouts Describe flow of workout
0.1.2	Describe WorkoutActivity and Slide-View

List of Activities

- Cockpit Activity — designed
  - + ManageWorkoutlist Activity — designed
    - ↳ ManageWorkout Activity — designed
  - + ShowDoneWorkoutsActivity — designed
  - + Workout Activity — designed
  - + ExerciseList Activity — designed
    - ↳ Exercise Activity — designed

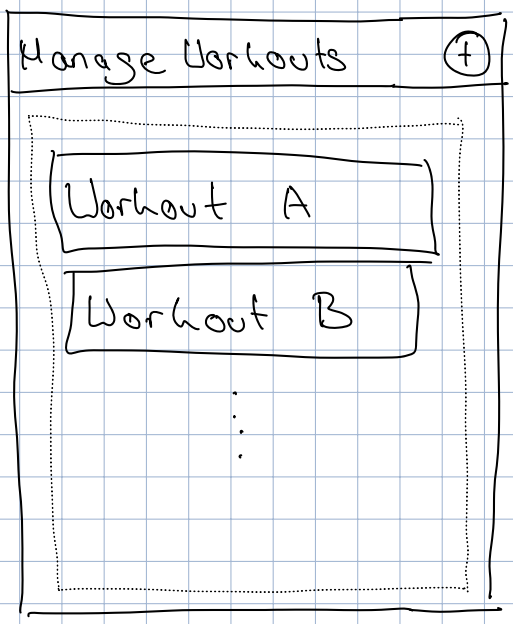
Cockpit Activity



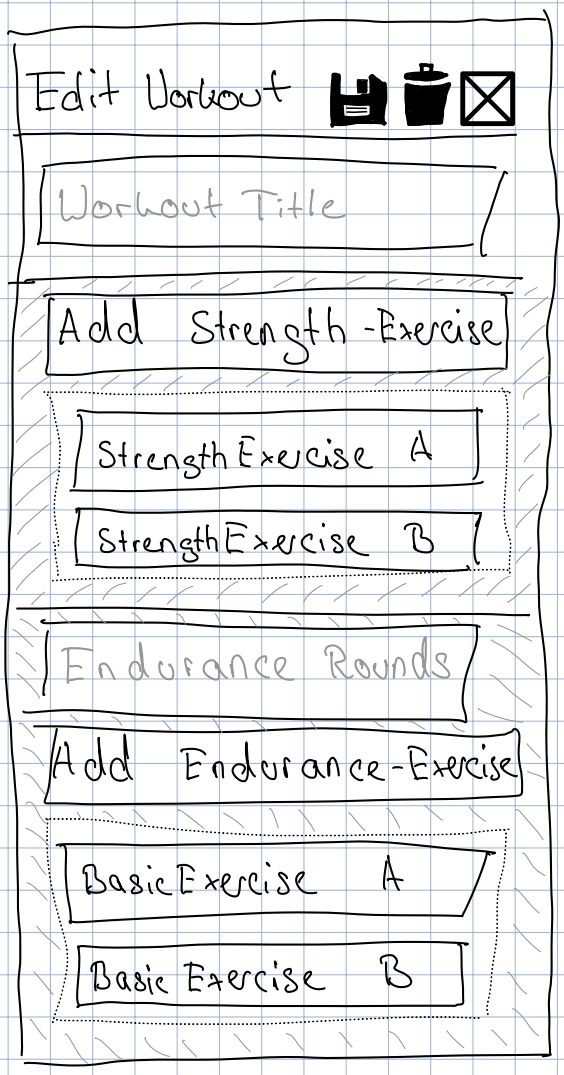
- By pressing "Manage Workout" workouts can be created, updated and deleted
  (→ start **ManageWorkoutListActivity**)
- By pressing "Manage Exercises", exercises can be created, updated and deleted
  (→ start **ExerciseListActivity**)
- By pressing "Show results" all made workouts (WorkoutResult) are shown
  (→ start **ShowDoneWorkoutsActivity**)
- Underneath all created Workouts are listed
  If a workout is pressed, a new instance of WorkoutResult is created, the workout can be made and the results stored.
  (→ start **WorkoutActivity**)

Manage Workout List Activity

- A new Workout Instance is created, by pessing the ⊕-Button (→ start **Manage Workout Activity**)
- By pressing on a specific Workout, the user can edit or delete it (→ start **Manage Workout Activity**)



Manage Workout Activity



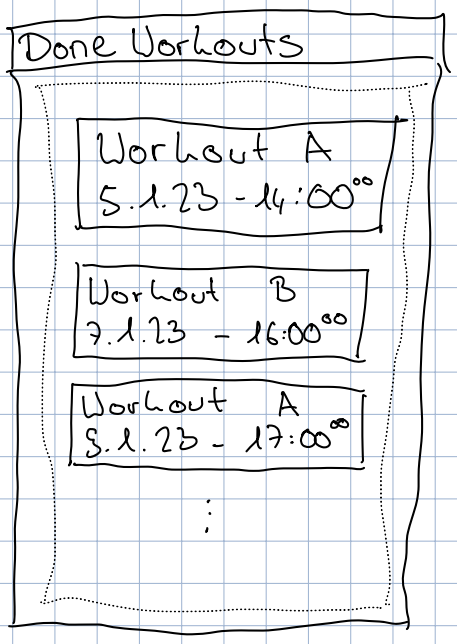
- By pressing the Save-Icon the Workout is safed.
- By pressing the Delete-Icon the Workout is deleted and the activity exits (finish())
- By pressing the cancel-Icon the activity exits also without saving.
- Textfield: Workout title (STRING)
- By Pressing "Add Strength-Exercise" all existing Exercises are listed and one could be selected (via Dropdown) // Because they only exists as BasicExercise, they are casted into StrengthExercise. Missing Infos can be supplemented by doing the Workout

Could be improved in future Releases

- All chosen strength exercises are listed in the recyclerview underneath
- Textfield: Endurance Rounds (INT)
- By Pressing "Add Endurance Exercise" all exercises are listed, and one can be selected (via Dropdown)
- All chosen endurance exercises are listed in the recyclerview underneath

ShowDoneWorkoutsActivity

- All saved instances of WorkoutResult's are shown in the recyclerview.
- By pressing on a item, more Infos can be seen
  (→ start **WorkoutActivity**)



Workout Activity

Type: StrengthExercise

Workout A

EMOM SB Clean

Name : SB Clean

Desc: Do a clean with a Sandback

Rounds	Repetition
5	10
Ontime	Off time
0s	60s
Rounddurations	Weight
120s	37,5kg

Workout A

Pushup

Name : Pushup

Desc: Do pushups

Rounds	Repetition
5	12
Ontime	Off time
0s	90s
Rounddurations	Weight
180s	0 kg

Type: EndsranceExercise

Workout A

DBL DB Clean

Name : DB Clean

Desc: Do Cleans with double Dumbbell

Round : 1 / 3

Repetition	Weight
20	37,5kg

Workout A

Bike

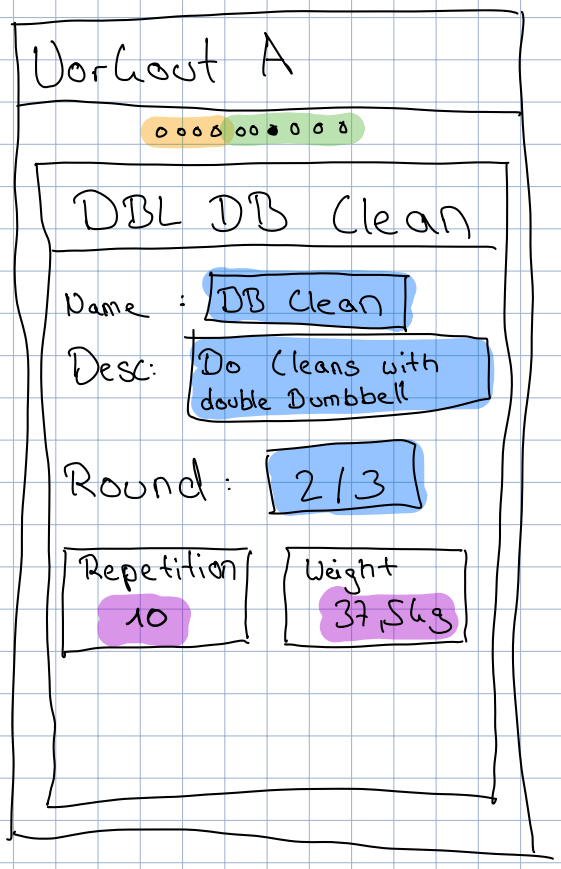
Name : Bike

Desc: Bike a given amount of Calories

Round : 1 / 3

Calories

15cal



- In the WorkoutActivity, the exercises are cycled through via swiping from left to right
- Over the exercise are dots show, which represents exercises in the workout
- The yellow marked Area contains Strength-Exercises. There each Dot represents a full exercise
- The green marked Area contains Endurance-Exercises Because in the Endurance-Part the rounds apply to all exercises, each Dot represents a round of an exercise. This means, if given 5 rds a 2 exercises, there will be 10 Dots for the Endurance-Part
- Blue marked Areas are immutable
- Violet marked Areas are mutable, unless the callee of the Activity is ShowDoneWorkoutsActivity

Calculate Adapterpos., EnduranceExercise Index and Round

Given:
- 2 Strength Exersises
- 2 Endurance Exercises (3 rounds alternating)

Adapterpos.	0	1	2	3	4	5	6	7
EnduranceRound	/	/	1	1	2	2	3	3
Exercise	stren1	stren2	end1.1	end1.2	end2.1	end2.2	end3.1	end3.2
EnduranceEx. Index	/	/	0	1	0	1	0	1
StrengthEx. Index	0	1	/	/	/	/	/	/

pos = Adapterposition

str.size = strengthExercise.size (= 2)

end.size = enduranceExercise.size (= 2)

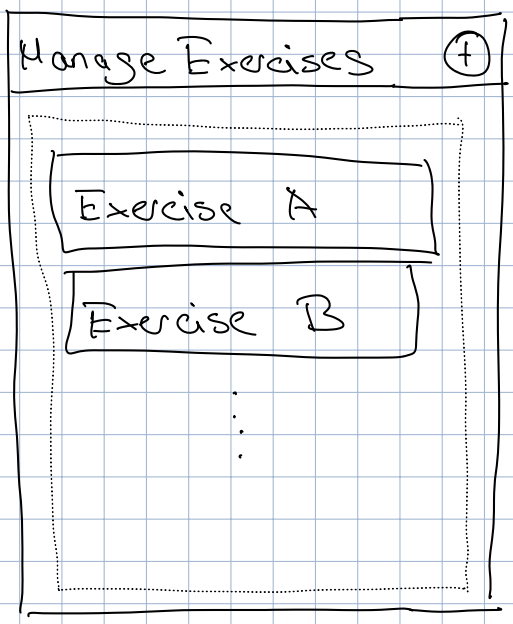
rounds = enduranceExerciseRounds (= 3)

Formulas:

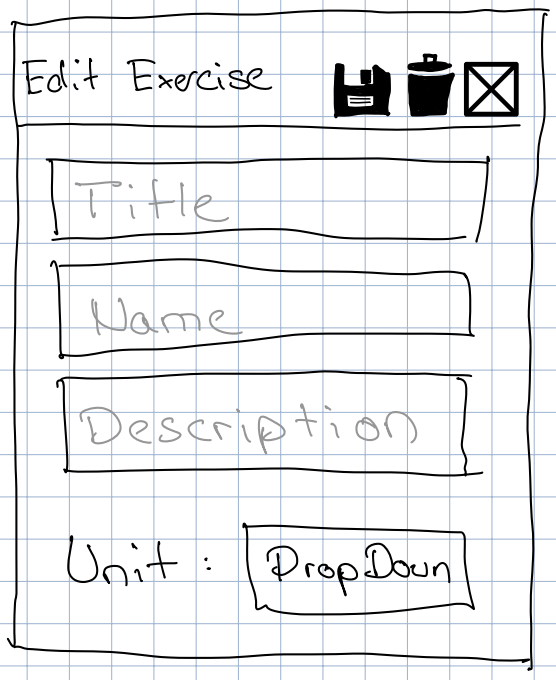
- $\text{EnduranceRound} = \left(\frac{\text{pos} - \text{str.size}}{\text{end.size}}\right) + 1$
- $\text{EnduranceExerciseIndex} = (\text{pos} - \text{str.size}) \,\%\, \text{end.size}$

ExerciseList Activity

- A new BasicExercise Instance is created, by pessing the ⊕-Button (→ start **ExerciseActivity**)
- By pressing on a specific Exercise, the user can edit or delete it (→ start **ExerciseActivity**)



Exercise Activity



- By pressing the Save-Icon the Exercise is safed.
- By pressing the Delete-Icon the Exercise is deleted and the activity exits (finish())
- By pressing the cancel-Icon the activity exits also without saving.

- 3 Textfield with STRINGS
- Unit: Dropdownlist to define type of effort (enum Units)
- Title + Unit is mandantory

Sharing Workouts

Not sure about, how to be done.

- Maybe QR Code is generated and User gets an URL to download from a database
- Or data is transfered via JSON in QR Code
  (Alphanumeric is max. 4296 Chars, thats about 4 Word pages with Font-Size 12)

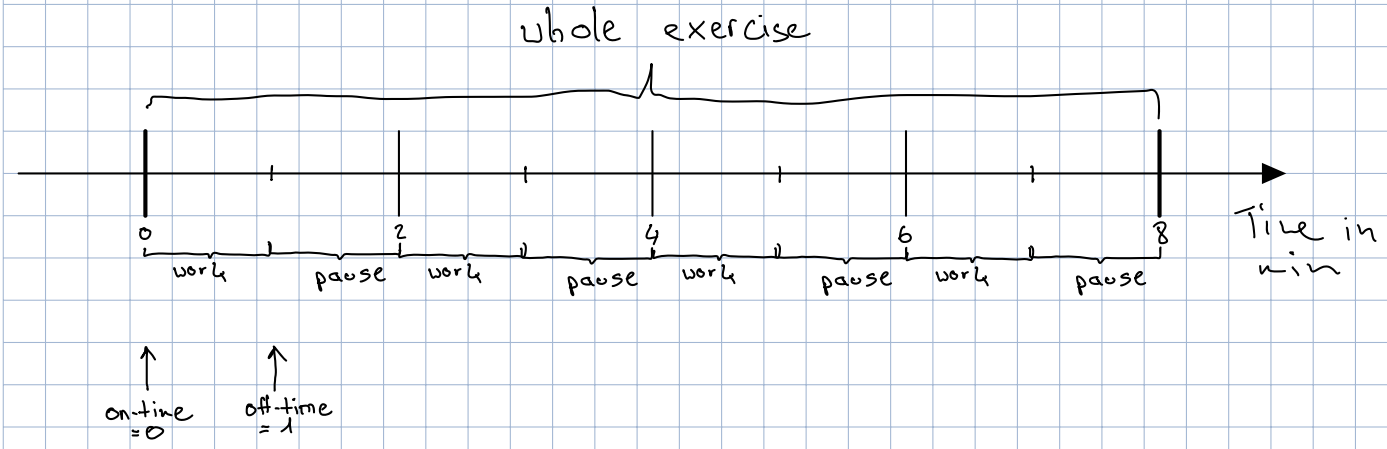
Structure of a whole workout

- Warmup (couple of small exercises, are announced in the workout - so not needed in the app; Acts as a placeholder)
- Strength-Part
  - Contains multiple exercises
  - Exercises are chained, one by one
  - Every exercise has properties
    - Duration: how long takes whole exercise
    - Unit: weight (e.g. for dumbbells, sandbags, ...), calories (e.g. for bike)
    - Repetitions: how many reps to do
    - Rounds: how many rounds to do
    - TimePerRound: Duration of a round
    - On-time: point of time to start
    - Off-time: point of time to pause
  - Duration = sum of exercise-durations
- WorkOut-Part (Endurance)
  - contains multiple excersises
  - Rounds
  - Duration per round
  - Reps per round
  - Exercise
    - Unit: weight or cal

Structure of an Exercise

- Title: Title of Exercise - is shown in menues etc.
- Name: Exact name for exercise (e.g. cicling, DB Snatch, ...)
- Description: more detailed description

Example of an exercise time-slice



Time per Round = 2min

Rounds = 4