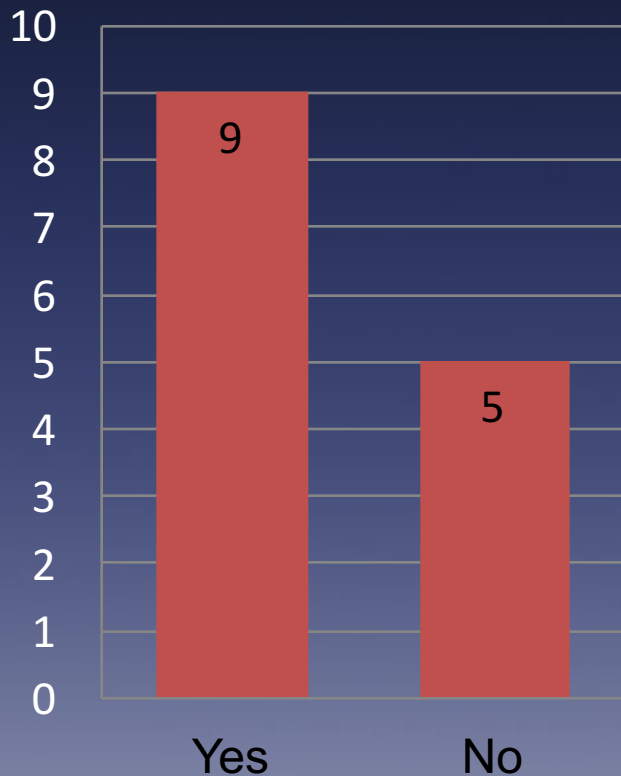


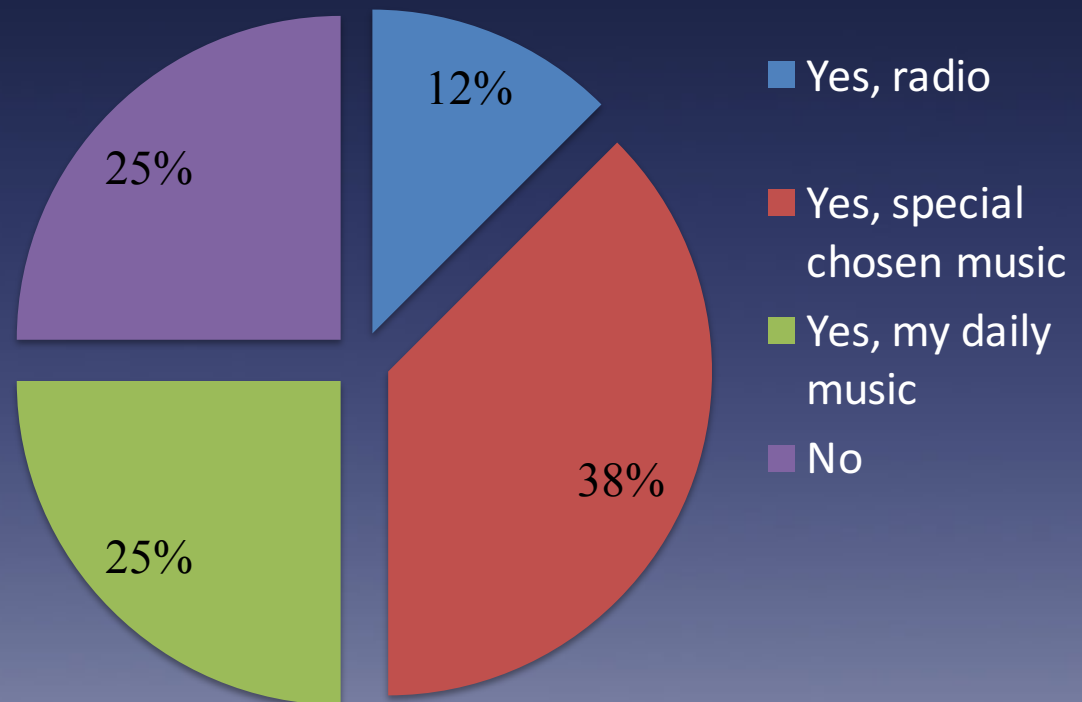


# Statistics

**In your opinion, is it true that some music give extra power?**



**How often you listen music during trainings?**



# Sport Assistance



# How it works?



# SA Web API

## SA DB Server





# Requests

**(q, limit=10, offset=0, type='track')**

Searches for an item

**Parameters:**

- q - the search query
- limit - the number of items to return
- offset - the index of the first item to return
- type - the type of item to return.

**(user, playlist\_id=None, fields=None)**

Gets playlist of a user

**Parameters:**

- user - the id of the user
- playlist\_id - the id of the playlist
- fields - which fields to return

**(tracks=[])**

Get audio features for multiple tracks based upon their Spotify IDs

**Parameters:**

- tracks - a list of track URIs, URLs or IDs, maximum: 50 ids



## DB Structure

(1) ObjectId("585418a45ce4953...	{ 8 fields }	Object
_id	ObjectId("585418a45ce4953a617eb74c")	ObjectId
artists	[ 1 element ]	Array
[0]	{ 5 fields }	Object
href	https://api.spotify.com/v1/artists/0Cb...	String
type	artist	String
artistid	0CbvK0X3ZKPeUwQc8zWB45	String
name	Gotcha!	String
uri	spotify:artist:0CbvK0X3ZKPeUwQc8zW...	String
played	1	Int32
trackid	0QcZXyA8QNB3JYtEBJZULU	String
duration	9293	Int32
skipped	0	Int32
name	Everybody Is a Superstar	String
tempo	0	Int32

## ASP.NET 4.6 and ASP.NET Core 1.0

ASP.NET 4.6	ASP.NET Core 1.0
.NET Framework 4.6	.NET Core 1.0
.NET framework libraries	.NET core libraries
Compilers and runtime components (.NET Compiler Platform: Roslyn, C#, VB, F# Languages, RyuJIT, SIMD)	

## Server Terminal

```
diakov2100@MAKS-PC:~$ ssh root@46.101.198.18
root@46.101.198.18's password:
Welcome to Ubuntu 16.10 (GNU/Linux 4.8.0-30-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

Get cloud support with Ubuntu Advantage Cloud Guest:
http://www.ubuntu.com/business/services/cloud

18 packages can be updated.
0 updates are security updates.

Last login: Mon Dec 19 18:54:40 2016 from 188.32.93.220
root@SportAssistante:~# systemctl status SA
SA.service - sport assistante web api
Loaded: loaded (/etc/systemd/system/SA.service; disabled; vendor preset: enabled)
Active: active (running) since Fri 2016-12-16 06:37:08 UTC; 3 days ago
Main PID: 23627 (dotnet)
Tasks: 23 (limit: 4915)
Memory: 156.6M
CPU: 3min 13.991s
CGroup: /system.slice/SA.service
└─23627 /usr/bin/dotnet /home/maks/SA/SA.dll
```

# SA Web Api

- POST method (every 30 secs, also start training)

Returns spotify track id string

- PUT method (every 10 secs)

Updates users pulse database

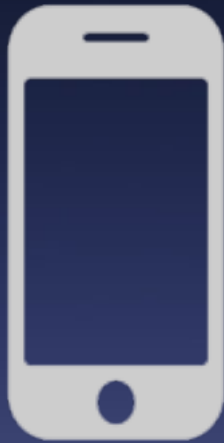
DELETE method (end training)

Ends training

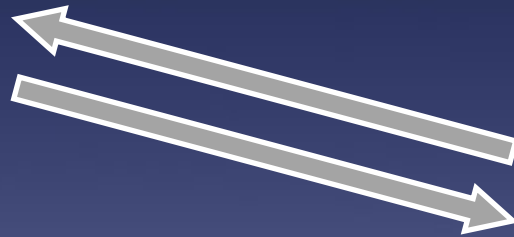
bpm	double	user's pulse
action	int	key: 1 - new track, 2 - new track (previous was skipped), 3 - first track (start training, bpm=0)
username	string	user's Spotify username
style	int	key: 1 - 'Just run', 2 - 'Max rhythm', 3 - 'Max distance'



# Algorithm

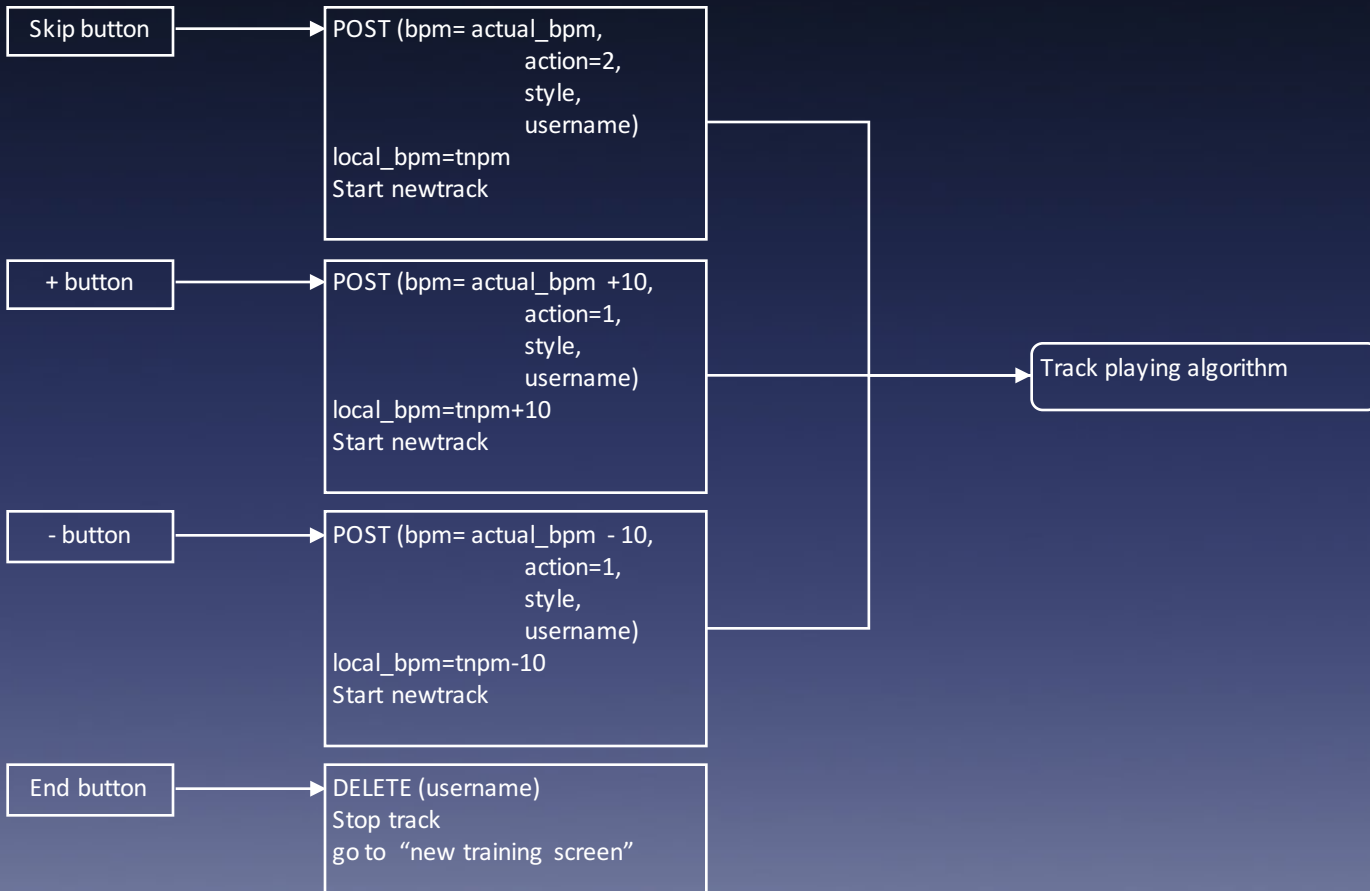


iPhone  
App

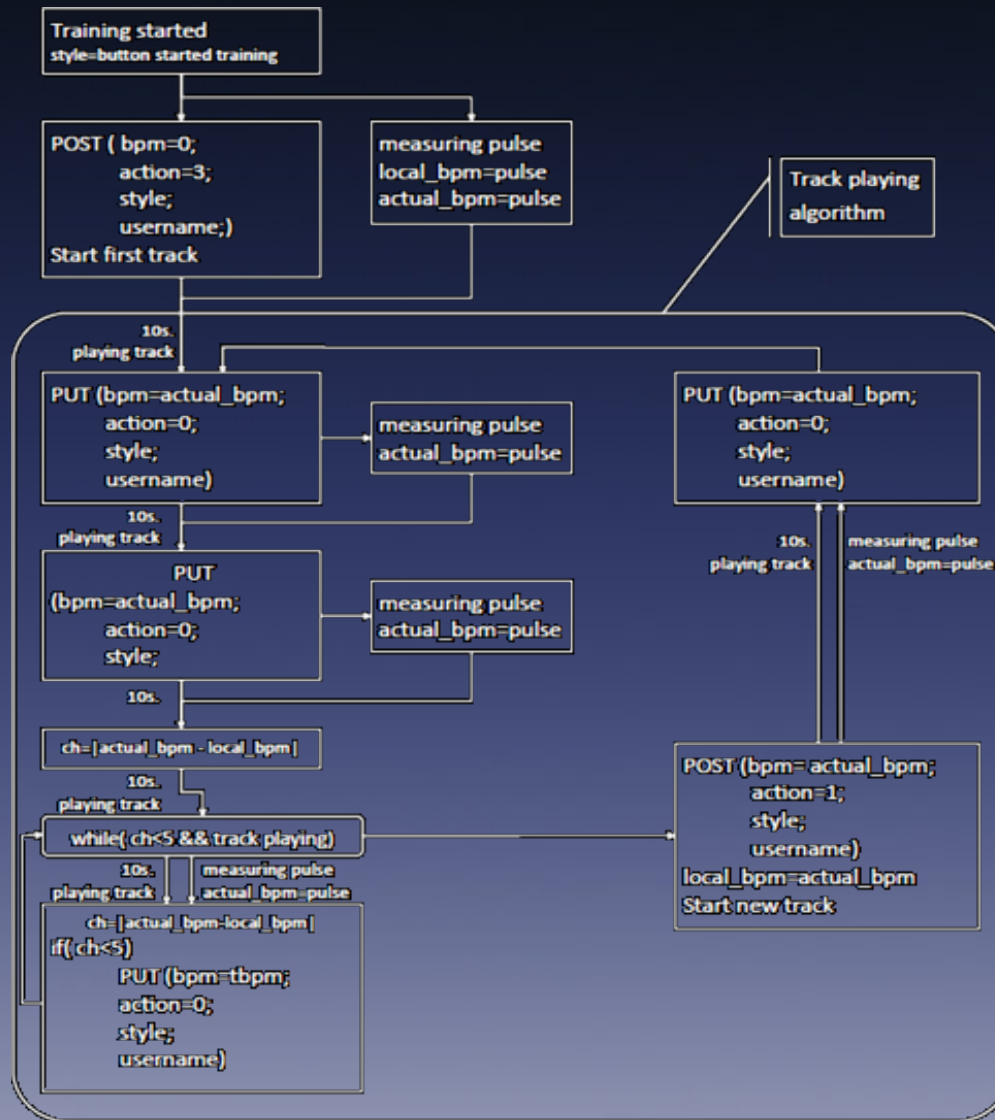


SA Web API + SA DB  
Server

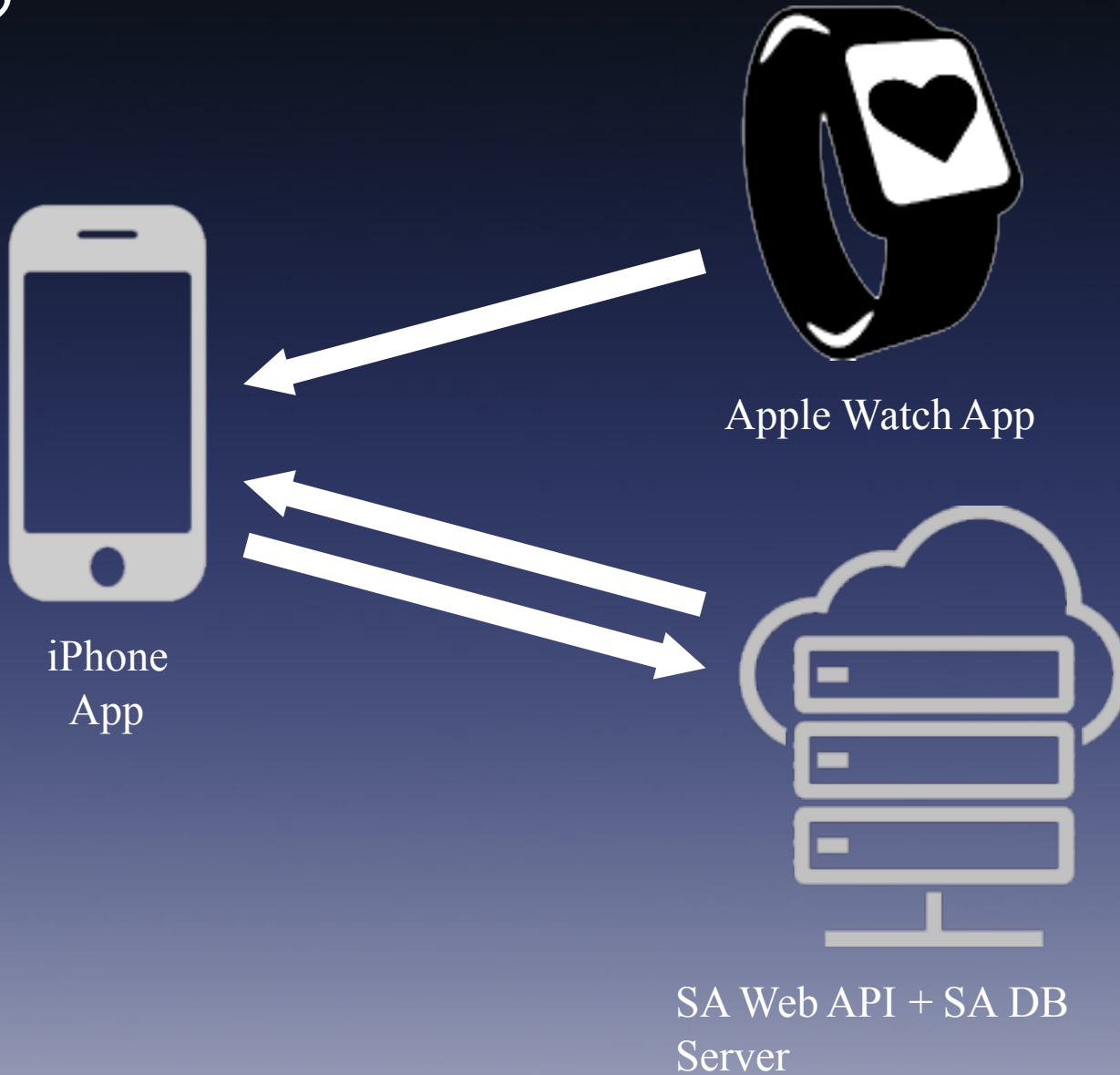
# Buttons control



# Application algorithm



# Algorithm



# Used SDKs

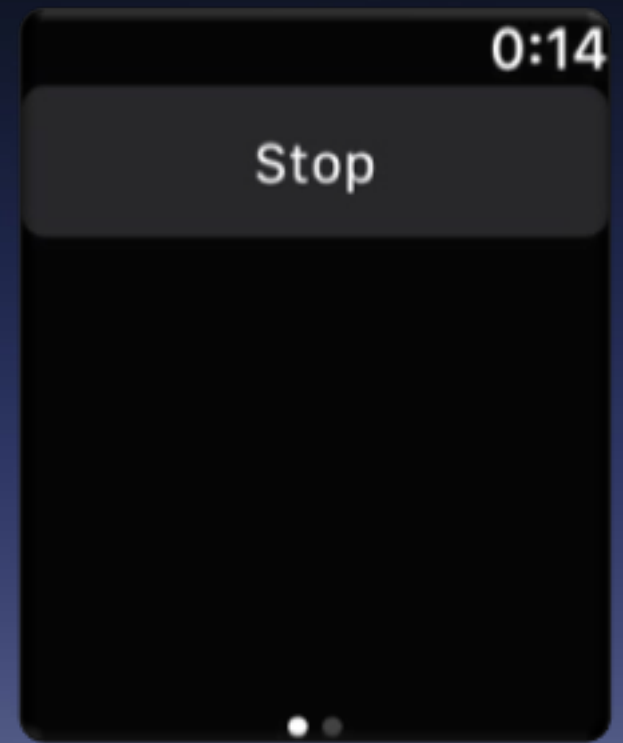
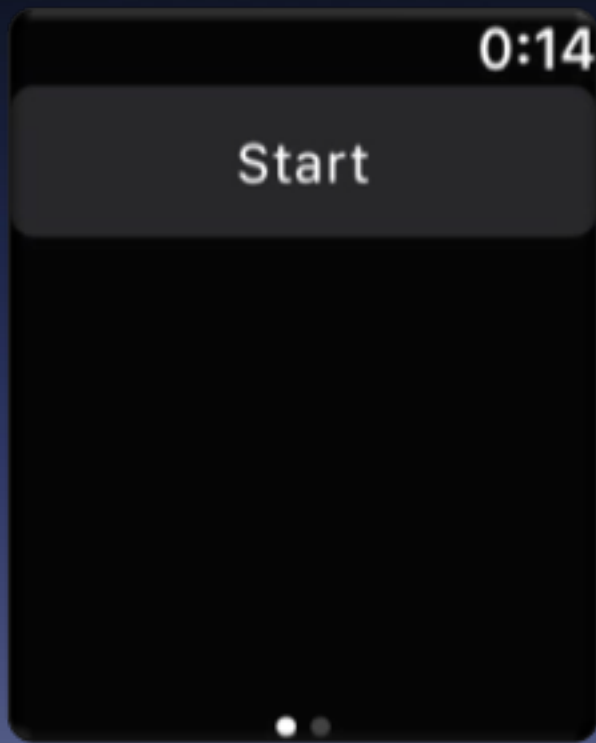


WatchKit



HealthKit

# Sessions

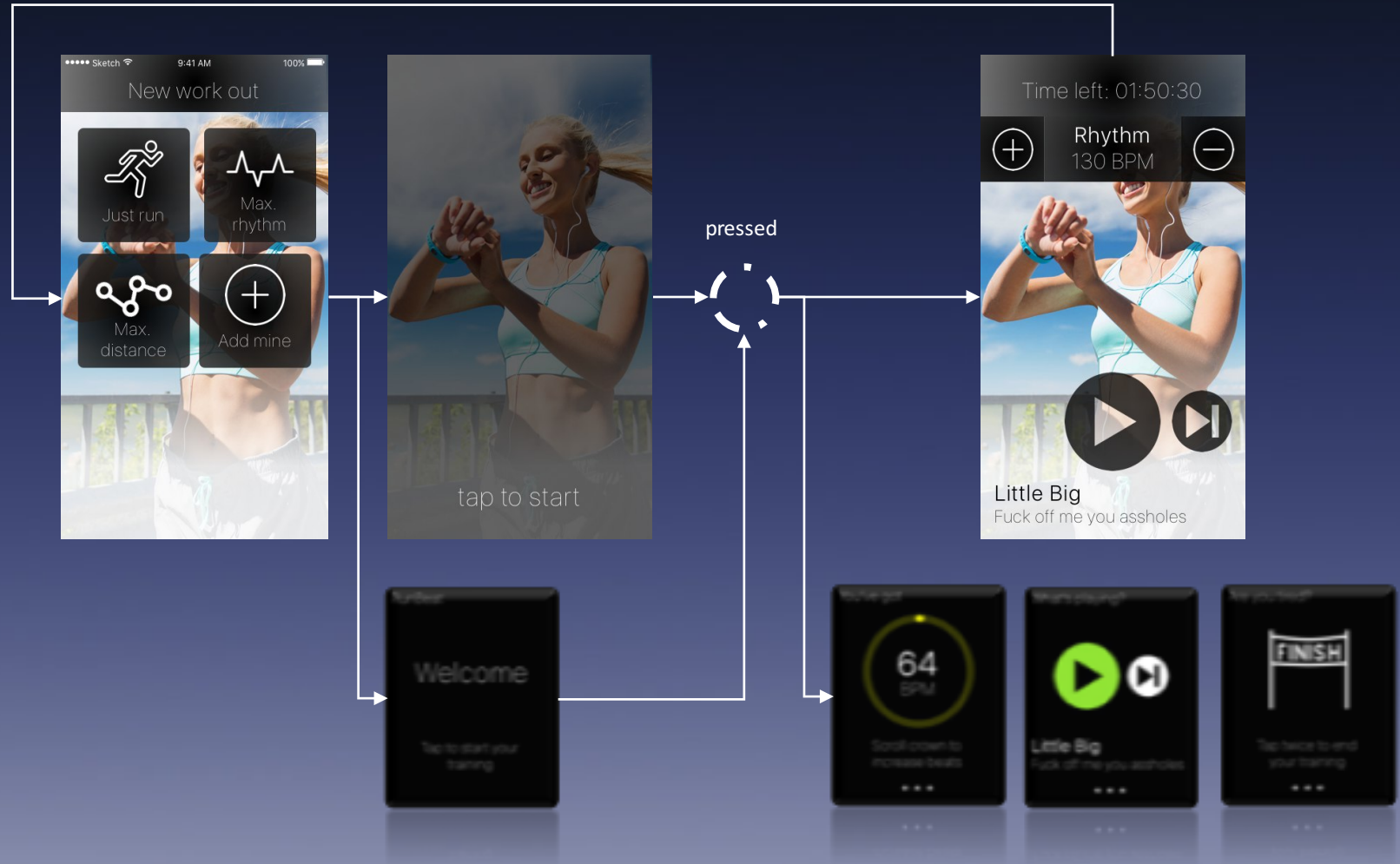


# How it looks?



# Design

slide to end training





# Time to check

