



TECHNISCHE  
UNIVERSITÄT  
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# Application Development for Mobile and Ubiquitous Computing

## *Surfing Adventure*

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# Appliction Scenario

- Having no friends to go on adventures with either because you're new in town or because no one is up for the challenge;
- Not knowing where to find activities;
- Tired of doing the same things all the time.



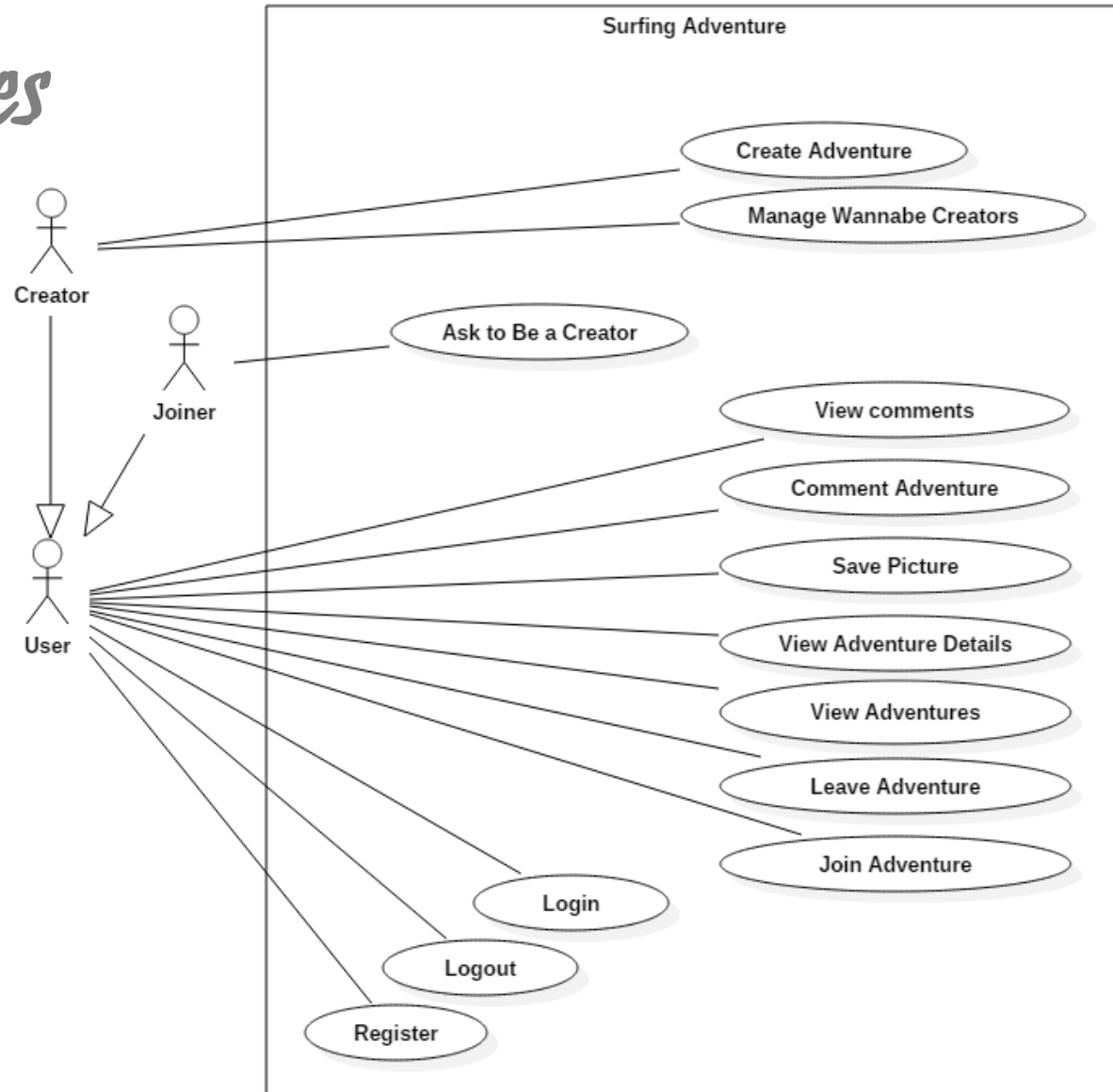
# Appliction Scenario

“*Surfing Adventure*” - An easy way to find new adventures, meet new people and new places:

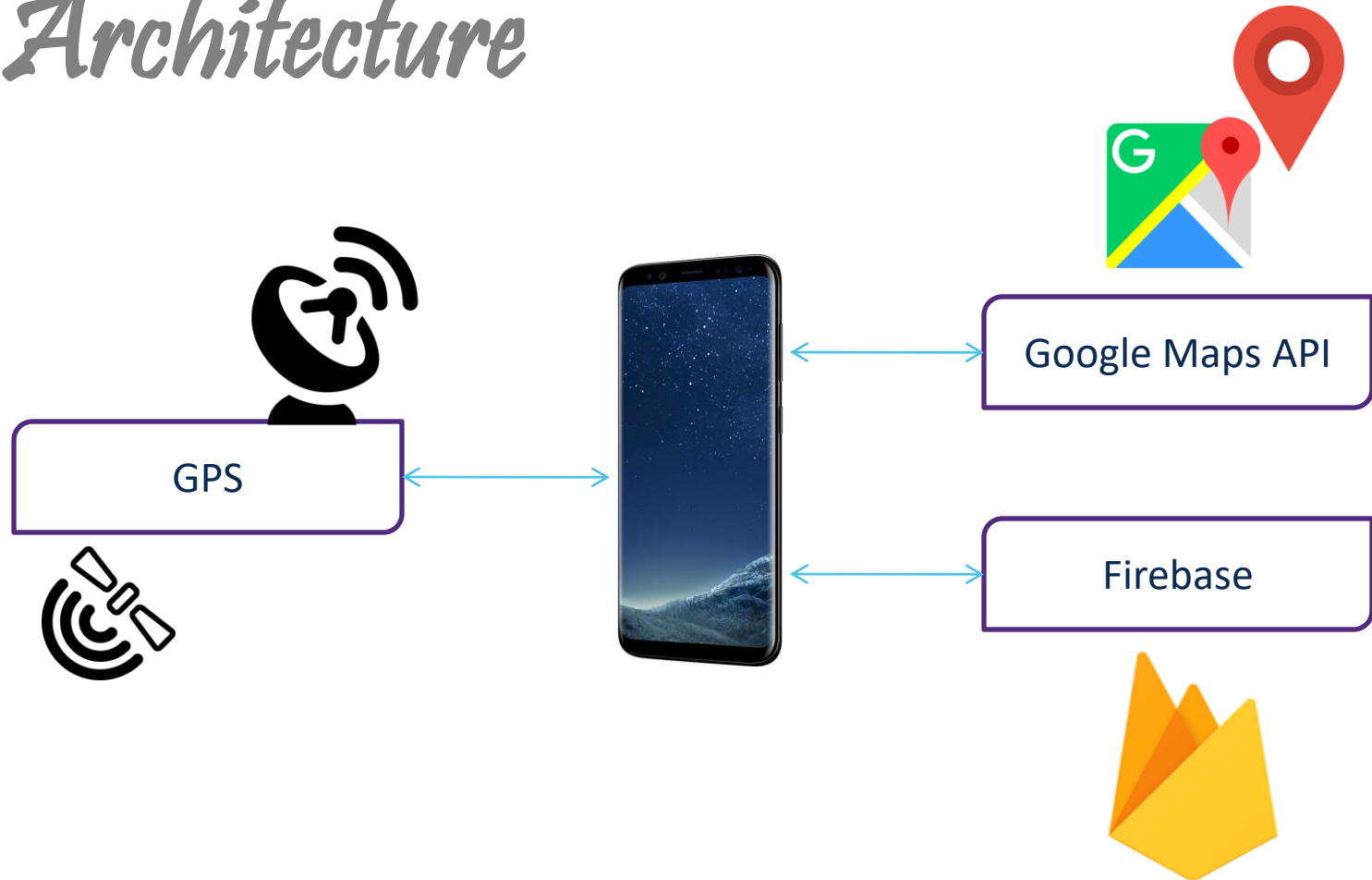
- Find new adventures near you and join them;
- Take a picture for each adventure, save it in your gallery so you can later revisit those fun moments;
- Be proactive and you will soon be able to create your own adventures!



# Use Cases



# Architecture



# Context / Adaptation

**Usability Challenge:** Provide the user with only the nearby adventures so he's not overloaded with unnecessary content and a faster application for a better experience.

## **Context:**

Capture the device's location using GPS.

Detect number of Adventures nearby.

## **Adaptation:**

By using the user's current location (latitude and longitude) and the adventure's location. Depending on the number of adventures found on the default radius, the radius changes (to a bigger radius) in case there aren't enough adventures nearby so the user can have more choices and, because of that, a better experience.

# Context / Adaptation

Energy Challenge: Reduce battery consumption caused by the GPS

## Context:

Reduce battery consumption of the GPS by only detecting the user's location with GPS from time to time.

Using `android.location.LocationManager`

## Adaptation:

It's not necessary for the user to use the GPS all the time, because by rule the users do not move a long distance in that time which provides us with some leeway to only track the GPS activity when the user starts moving, by changing the update rate from minute to minute to every 30 seconds.