

Osaamista  
ja oivallusta  
tulevaisuuden  
tekemiseen



## Avoimen datan hyödyntäminen Innovaatioprojekteissa TiVi & Tuotantotalous

# ADP Innovation Project

## 10 ECTS

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Majors: Industrial Management  
Mobile Solutions  
Media Engineering  
Energy and Environmental Engineering

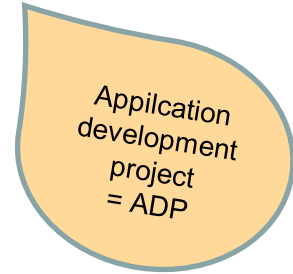


# ADP Innovation Project Target

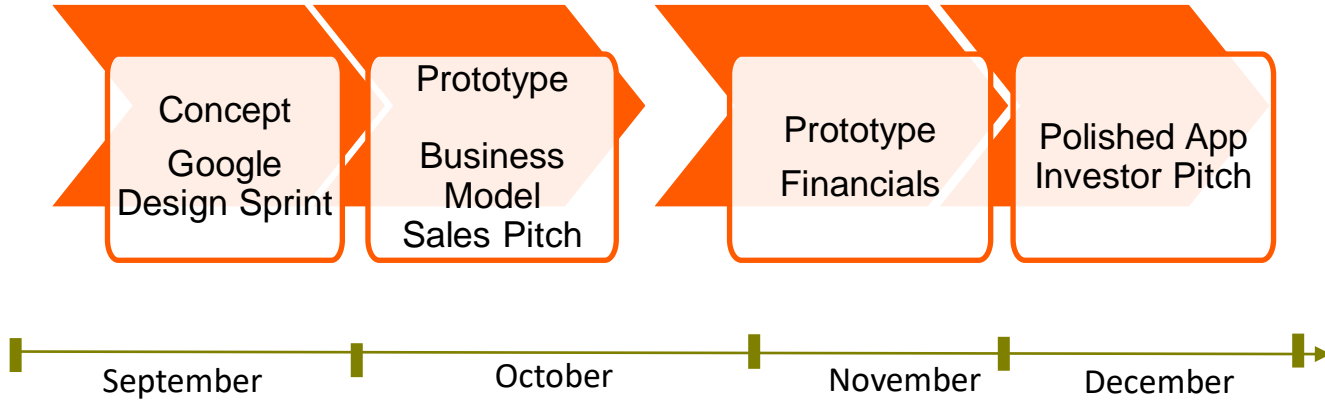
Develop an application idea and the application and prove the benefit and potential business case

The goal for the students to learn

- Innovation in practice
- Working for a real “client”
- Cross cultural and cross disciplinary team work
- User engagement
- Business planning for a new application
- Application development & processes



# Four Development Sprints



In every ca 4 week sprint

- New version of app
- Business Planning
- User engagement
- Presentations to partner at the end of every sprint

# ADP Partners

- 7 different organisations, 16-18 different project topics
- Partner's goals for participation
  - Getting a **proof of concept** including service design, programming and preliminary financials for investment (if relevant)
  - To participate in training students for jobs in service development and programming
  - Recruiting (some partners)
- Partner's role
  - Giving a practical problem and topic for students to find a solution for
  - Project guidance and further contacts for students
  - Participate in kick-off, final presentation and ca 4 steering sessions with the own student teams and teacher
  - Giving feedback and evaluating the work of the students

# ADP Project Examples 2021

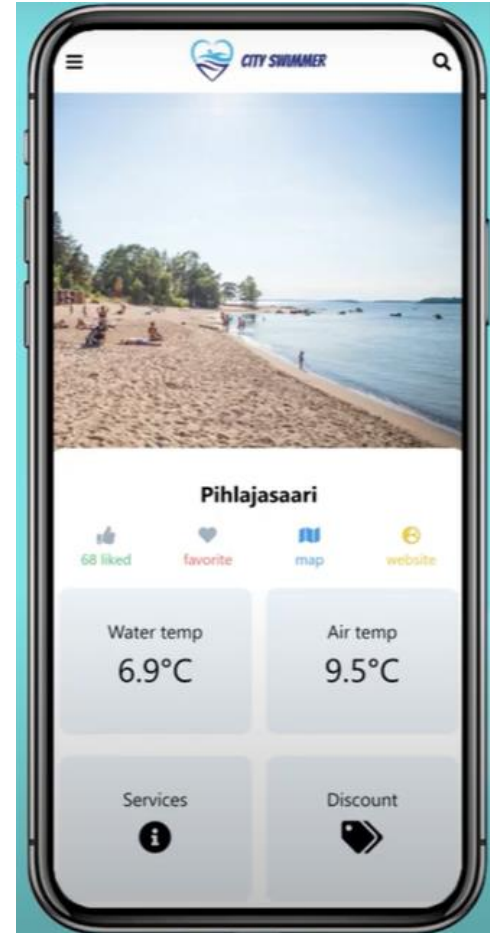
- Fortum E-site
  - 3 projects around concepts for utilizing virtual environments instead of on-site visits
  - Focus on UX
- Forum Virium & HRI (City of Helsinki)
  - 4 IoT projects for a better city
- Veho
  - 2 projects: Car Subscription app
- Nokia
  - 4 projects:
    - Oulu citizen, asuntomessuappi
    - Campus app & työntekijähyvinvointi
    - 2 x Interaktiivinen digitaalinen taideteos, johon voi vaikuttaa
- SafeOnStage
  - Teaching safety for theater and event employees
- Own app and business idea by student team

# Promoting Public Swimming Places

Project(s)	Beach app
Case organiastion and contact information	Forum Virium lot: Timo Ruohomäki (timo.ruohomaki@forumvirium.fi)
Describe the challenge to the students.	The water temperatures on swimming places have been collected in the summer of 2020 from 14 places in Helsinki, Espoo and Vantaa. What kind of services could motivate people to use these beaches more?
Target audience. Who are the primary users?	People interested in excercising or spending time on public swimming places.
Expected outcomes	New services or concepts supporting the goals
Additional information and links	Uimarantasensorit: <a href="https://uiras.fvh.io/">https://uiras.fvh.io/</a> <a href="https://hri.fi/data/en_GB/dataset/veden-reaaliaikainen-lampotila-helsingin-uimarannoilla">https://hri.fi/data/en_GB/dataset/veden-reaaliaikainen-lampotila-helsingin-uimarannoilla</a> MyHelsinki Open API: <a href="https://open-api.myhelsinki.fi/doc">https://open-api.myhelsinki.fi/doc</a>

# Project: City Swimmers

- React app
- MyHelsinki Open API
- UiRaS
- HSL reittiopas
- Google Maps
- [Video presentation](#) @ MinnoFest





# Promote the use of outdoor exercising equipment

Project(s)	Beach app
Case organisation	Forum Virium lot: Timo Ruohomäki (timo.ruohomaki@forumvirium.fi)
Describe the challenge to the students.	Helsinki provides residents over 1000 units exercising equipment that are permanently accessible in parks and recreational areas. Are there any ways to promote this to help the people to exercise even without a gym card? Taking <a href="https://www.ulkoliikunta.fi/en">https://www.ulkoliikunta.fi/en</a> to the next level
Target audience. Who are the primary users?	People interested in fitness and exercising
Expected outcomes	New services or concepts supporting the goals, new ideas on combining provided services with other ones
Additional information and links	Utilization rates of outdoor exercising places: <a href="https://hri.fi/data/en_GB/dataset/helsingin-ulkoliikuntapaikkojen-laitteiden-kayttoasteet">https://hri.fi/data/en_GB/dataset/helsingin-ulkoliikuntapaikkojen-laitteiden-kayttoasteet</a> Helsinki Places and Events API: <a href="https://open-api.myhelsinki.fi/doc">https://open-api.myhelsinki.fi/doc</a>

# Project: Helsinki Outdoor Activities app

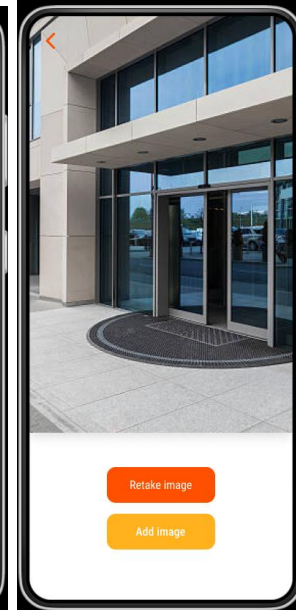
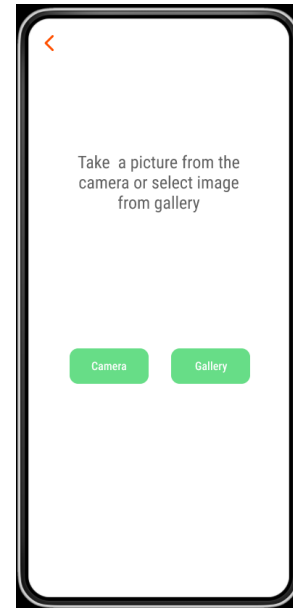
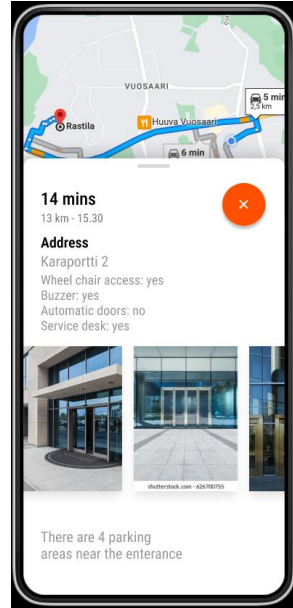
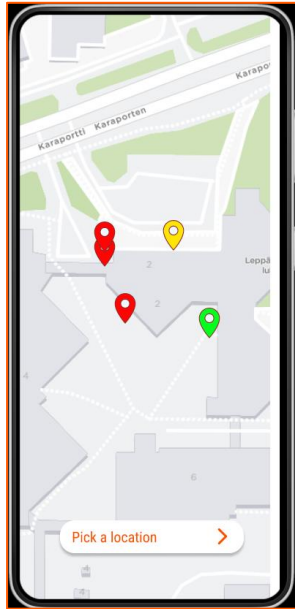
- [Video presentation](#) @ [MinnoFest](#)
- Android App
- My Helsinki Open API
  - Paikat, tapahtumat ja aktiviteetit
- Lipas liikuntapaikat Rest API
- Free Code Camp Weather API



# Last meter navigation - find your way to tricky places

Project(s)	Open Logistics Map (OLMap) - find your way to tricky places
Describe the challenge to the students.	Navigating the last metres and finding the right entrance can be difficult in big city buildings or residential areas. This causes extra driving and time losses for anyone trying to get there: deliveries, taxis, emergency vehicles, visitors. OLMap dataset of 20 000 entrances and other data points in Helsinki, originally gathered to help deliveries but feel free use for other use cases.
Target audience. Who are the primary users?	Anyone using Google Maps or other navigation but not satisfied on their last metre navigation capabilities. Previous project tested the idea with delivery drivers but now it's time for other user groups, too.
Expected outcomes	Use case / outcome examples: <ul style="list-style-type: none"><li>- a tool for sharing your last metre wayfinding instructions for anyone trying to get there (delivery driver, guests etc) based on OpenStreetMap &amp; OLMap data</li><li>- OLMap data integration to some navigation software</li><li>- your own idea...?</li></ul>
Additional information and links	<a href="https://app.olmap.org/#/notes">https://app.olmap.org/#/notes</a> <a href="https://github.com/ForumViriumHelsinki/OLMap">https://github.com/ForumViriumHelsinki/OLMap</a>

# Project: Door Discovery

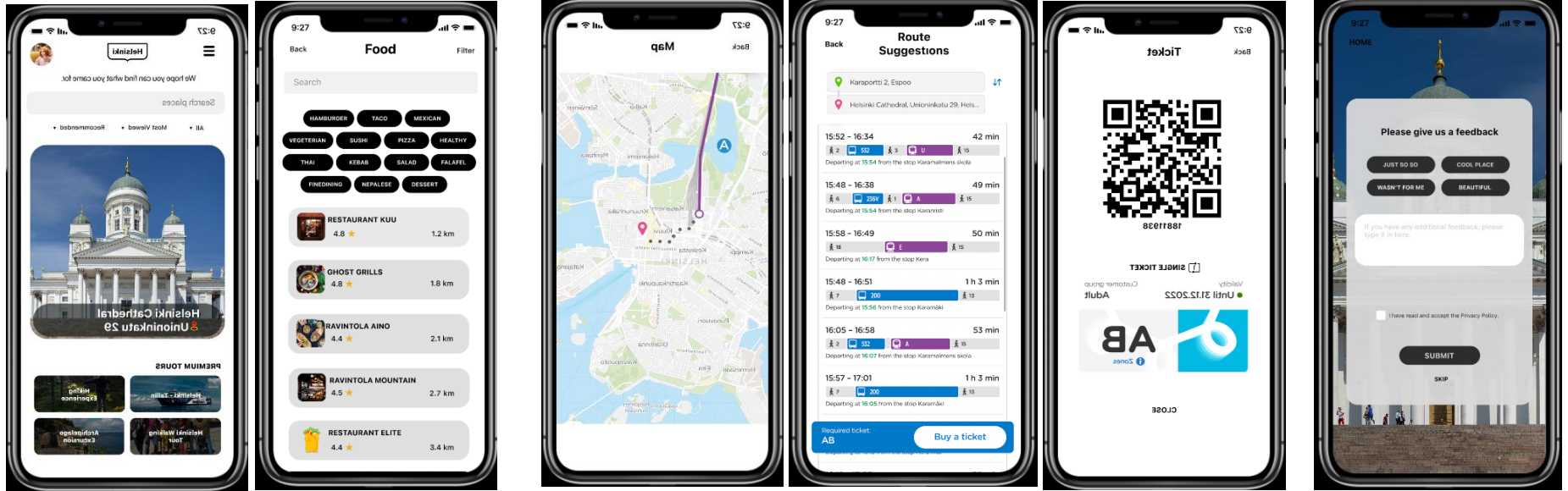


- Android app
- Entrances and gates to buildings in central Helsinki.
  - Open Logistics Map API

# New mobility solutions for tourists

Project(s)	Topic
Case organisation and contact information	Forum Virium Helsinki, Smart Mobility team Project Manager Janne Rinne ( <a href="mailto:janne.rinne@forumvirium.fi">janne.rinne@forumvirium.fi</a> )
Describe the challenge to the students.	The challenge is to develop new mobility solutions for tourists visiting Helsinki. The solution should somehow utilise mobility-related data in Helsinki. The solutions can be for example new mobility services, navigation or guidance, improvement of traffic safety, incentives for sustainable mobility, or any other solution, which facilitates smooth, safe and/or sustainable urban mobility.
Target audience. Who are the primary users?	The target group (= end-user) in this challenge is: <ul style="list-style-type: none"><li>- Tourists</li><li>- Companies providing services for tourists (hotels, mobility services, commercial services)</li></ul>
Expected outcomes	New concepts, prototypes of solutions, which facilitate smooth, safe and/or sustainable mobility
Additional information and links	Summary of available mobility data in Helsinki: <a href="https://mobilitylab.hel.fi/materials/">https://mobilitylab.hel.fi/materials/</a>

# Touristly: Explore Helsinki easily using public transportation



- Prototype (Figma)
- My Helsinki Open API
- HSL Reittiopas
- HSL OpenMaas (liput)

# Mitä hyötyä avoimesta datasta opiskelijaprojekteissa?

- Avointa dataa hyödyntävien tuotekonseptien ideointi ja testaaminen
- API-rajapintojen käyttö ohjelmoinnissa
- API-rajapintojen analysointi ja suunnittelu
  - Ryhmien annettava HRI:lle palautetta API:n toimivuudesta
- Mahdolliset liiketoimintaideat