

Department of Computer Science Institute for System Architecture, Chair for Computer Networks

## Application Development for Mobile and Ubiquitous Computing

## Don't Forget Your Toothbrush First Presentation

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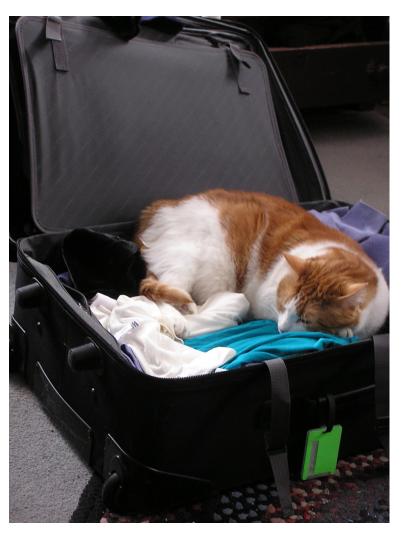
## **Application Scenario**

- traveling, especially to foreign countries, requires meticulous planning:
  - red tape everywhere
  - different plugs and currencies
  - memorize required items for all party members
- possible result: "Did I pack my toothbrush?"

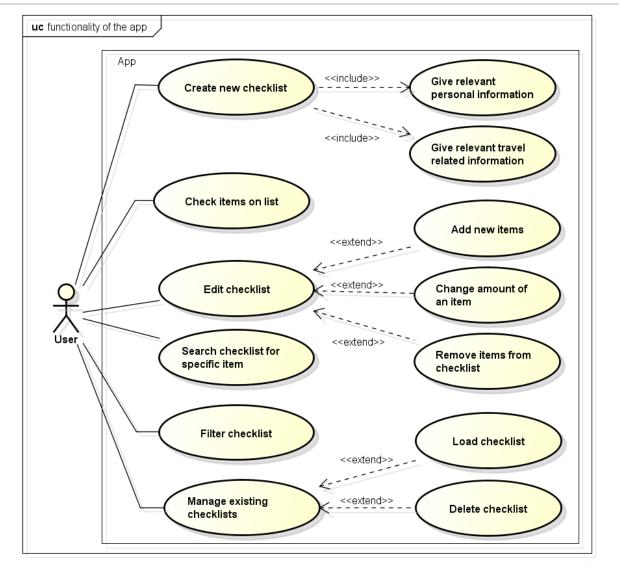




- luggage checklist
- user input:
  - participants (kids, pets)
  - destination, travel time
  - activities
  - mean of transportation
- automatically creates checklist with required items
- custom entries







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## Mockups

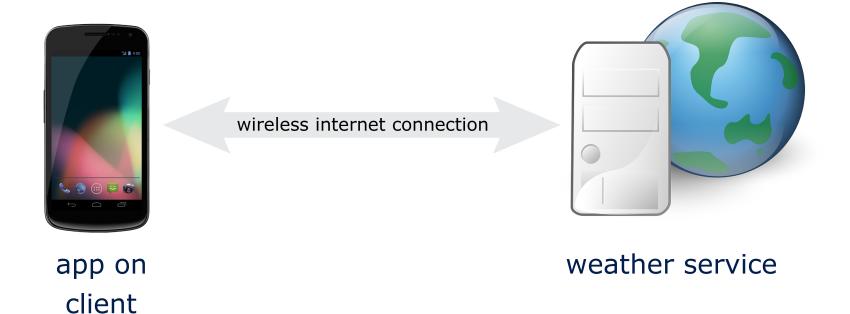
Create new Checklist		Switzerland Checklist	€12:00	Older Checklists	<b>?,₁ </b> 🖬 12:00
Create new Checklist		Switzenand Checklist		Older Checklists	:
DESTINATION		Carl Joanne	All	Trip Spain 2012	
Country		CLOTHING		Paris Weekend	
Accomondation type		Warm Coat			
		Coorf		UK May 2013	
TRAVEL TIME		Scarf		New Zealand 2011	
From	Fri, Nov 7, 2014	Underwear	7		
		Warm Pants	3		
То	Sun, Nov 16, 2014				
		SANITARY PRODUCTS			
ADDITIONAL INFORMATION		Toothbrush and -paste			
Washing machine accessible? 🗹		Shampoo			
		Shower gel			
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- Technologies
  - Android application
  - SQLite or XML database for travel guidelines and frequently used items
  - external weather service, e. g. openweather API from wetter.com



- Architecture
  - mostly stand-alone application
  - external communication to weather service





- Usability
  - deal with heterogeneous user requirements (different countries; children, pets)
  - display lots of information in a comprehensive way
- Offline Challenge
  - enable checklist function even if weather information cannot be fetched
- Battery Challenge
  - disable or adapt behavior of power consuming components if battery runs low



- November
  - design UI in detail: dummy GUI prototype
  - construct sample databases
  - start back end implementation (e. g. container for user data)
- December
  - finalize back end implementation
  - connect UI and back end components
- January
  - bug fixes and documentation
  - optimize resource handling, energy consumption



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- slide 7: left image "Samsung Galaxy Nexus Render" by WilliamTheaker; license: CC BY-SA 3.0 (http://creativecommons.org/licenses/by-sa/3.0/)
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