TECHNISCHE UNIVERSITÄT DRESDEN

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

Application Development for Mobile and Ubiquitous Computing

Task 2 – Chat and Content Sharing First Presentation

GroupNo.
Team:
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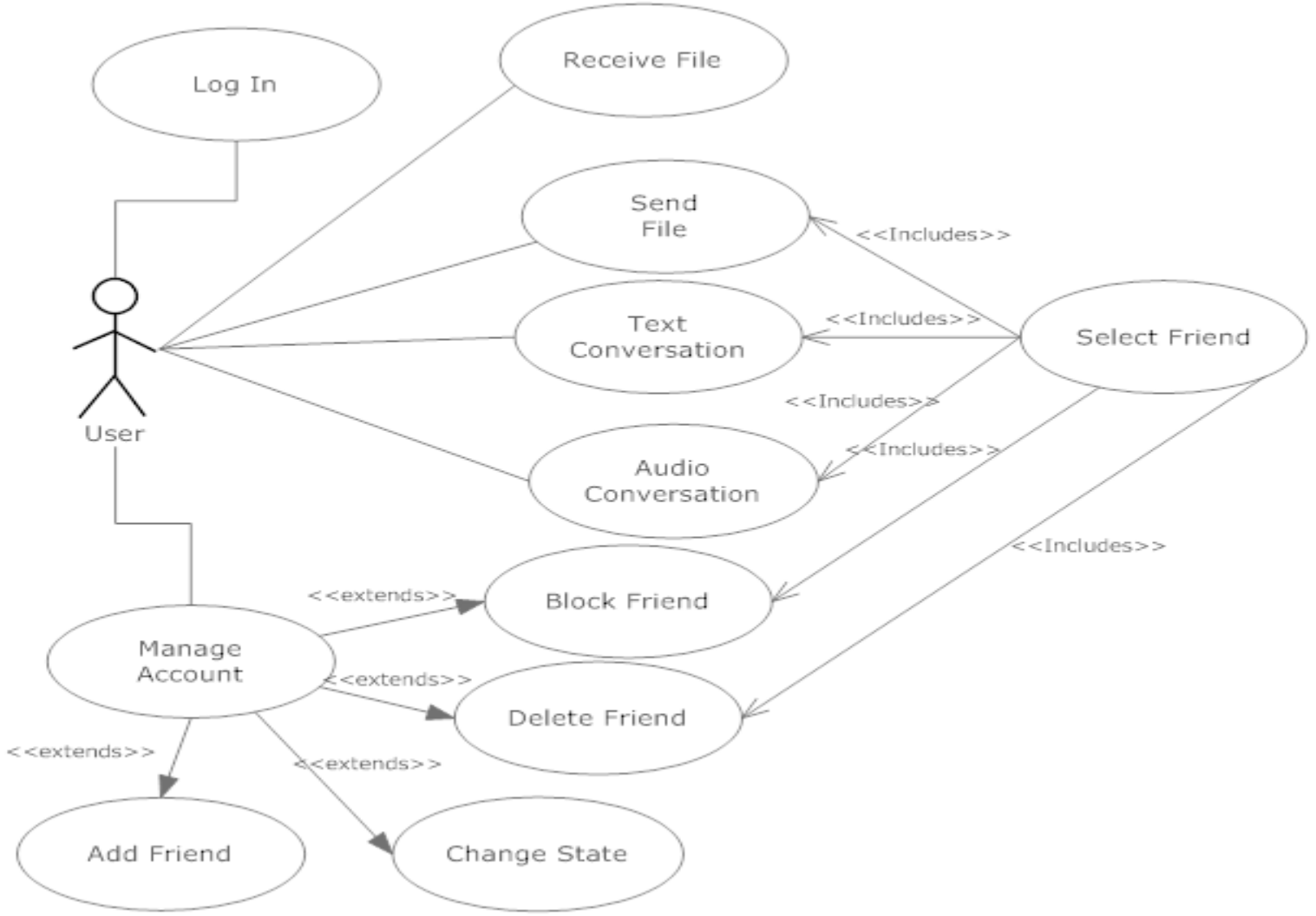
Application Scenario

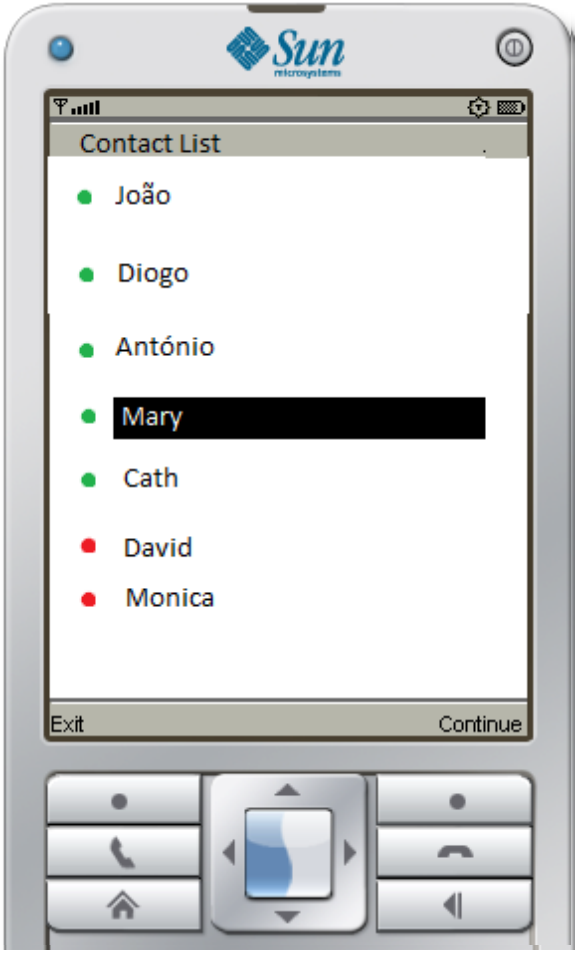
- Chat:
  - Manage friends list;
  - View friends status;
  - Block friends;
  - Text conversation;
  - Audio conversation;
- Content sharing:
  - File exchange;

Use Case

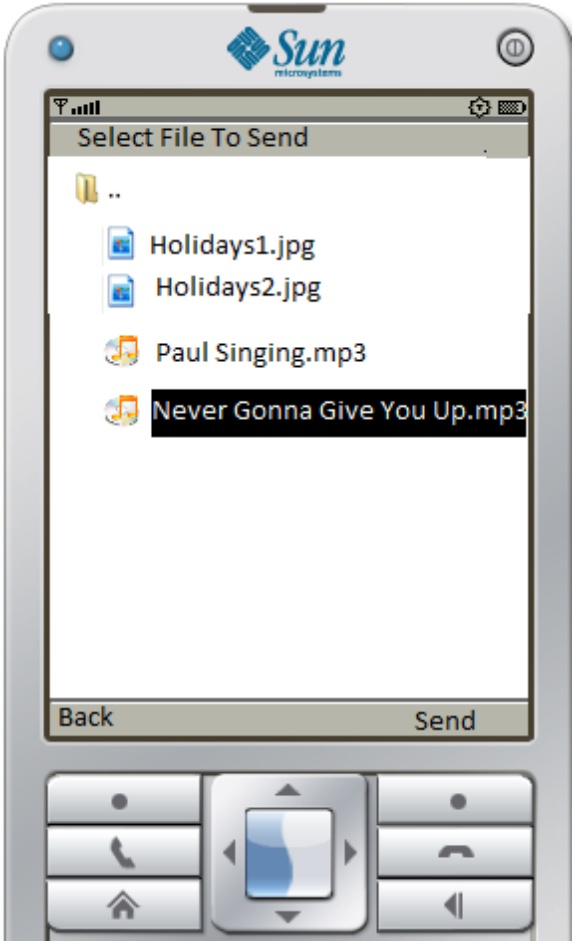

Log In
Receive File
Send File
<<Includes>>
Text Conversation
<<Includes>>
Select Friend
User
<<Includes>>
<<Includes>>
Audio Conversation
<<Includes>>
<<extends>>
Block Friend
Manage Account
<<extends>>
Delete Friend
<<extends>>
<<extends>>
Add Friend
Change State

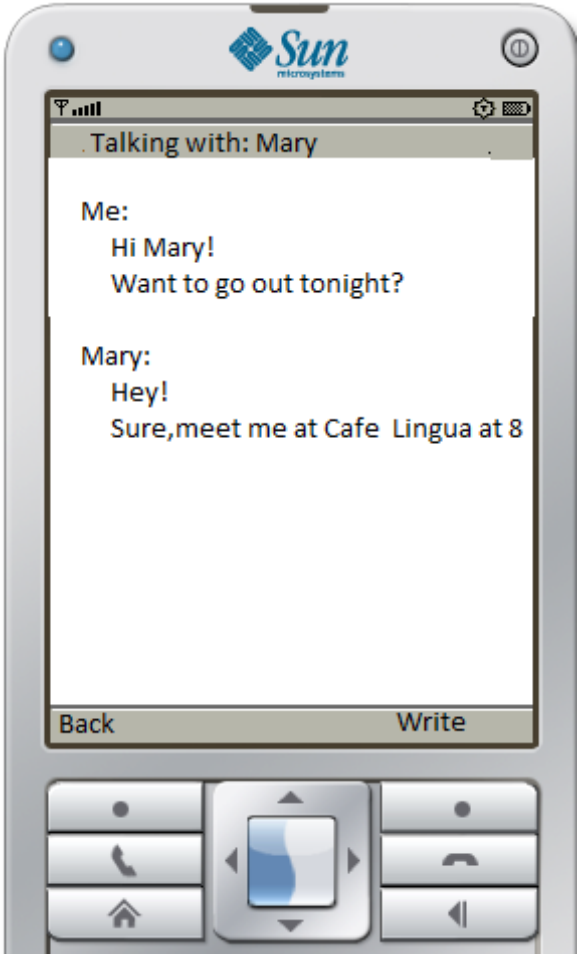
Mockup

Sun
LogIn
Password
Exit
Continue

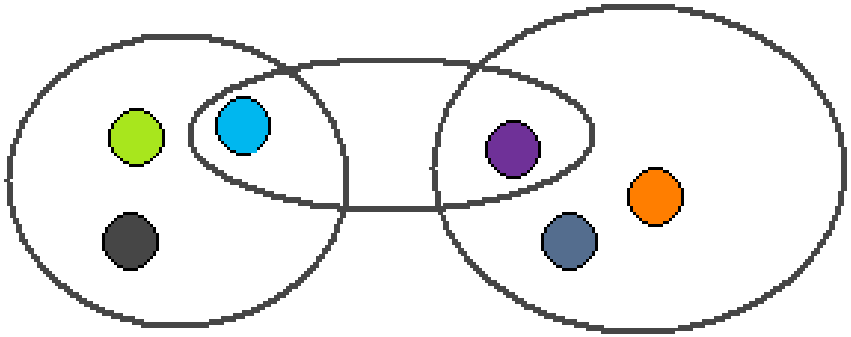

Sun
Contact List
João
Diogo
António
Mary
Cath
David
Monica
Exit
Continue

Mockup


Sun
Select File To Send
..
Holidays1.jpg
Holidays2.jpg
Paul Singing.mp3
Never Gonna Give You Up.mp3
Back
Send


Sun
Talking with: Mary
Me:
Hi Mary!
Want to go out tonight?
Mary:
Hey!
Sure,meet me at Cafe Lingua at 8
Back
Write

- JXTA
  - Connect the mobile to the JXTA network
  - Each peer has an ID;
  - Peer join groups to interact with other peers;
  - Peers uses services;
  - Groups can be more or less restrict.

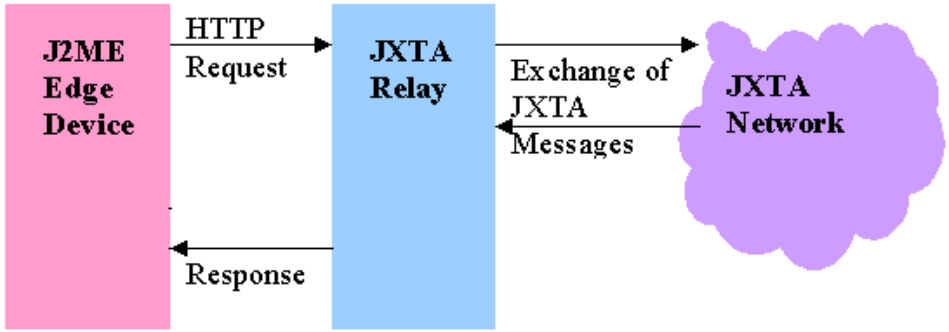


Technologies

- Java ME (Java Platform, Micro Edition)
  - Program the client on the mobile;
  - Contains a subset of the Java-class libraries;

Challenges

- Descentralized p2p network for mobiles:
  - Avoid to overload the super peers;



- IM wherever you are, whenever you want:
  - Difficulty of localize peers in this kind of p2p network;
  - Secure connections using RSA (Rivest, Shamir e Adelman) algorithm;

Work plan

- 14-12-2009: First Prototype
- 18-12-2009: Second Presentation
- 20-12-2009: Final Version
- 22-01-2010: Testing Phase
- 29-01-2010: Final Presentation
- 05-02-2010: Submission of results