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Promoting Active Learning using a web-based Audience Response System

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Introduction

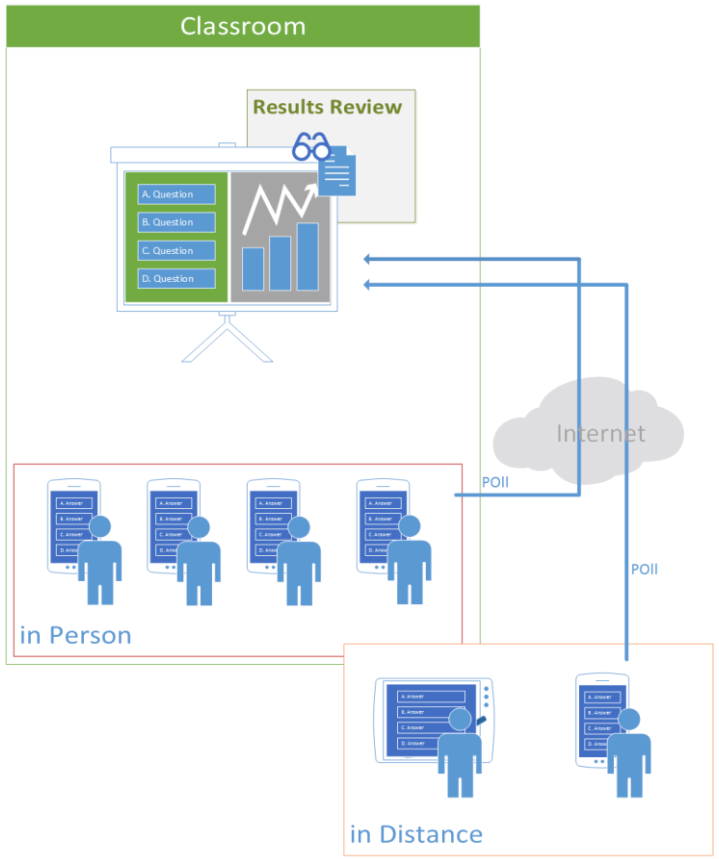
- Web - based Audience Response System (ARS)
- Aims to assist the educational process by enhancing students' participation through the Active Learning Model (ALM)
- Based on open source technologies
  - No financial effort for the institution
  - Students use their own hand held devices (BYOD)

Advantages

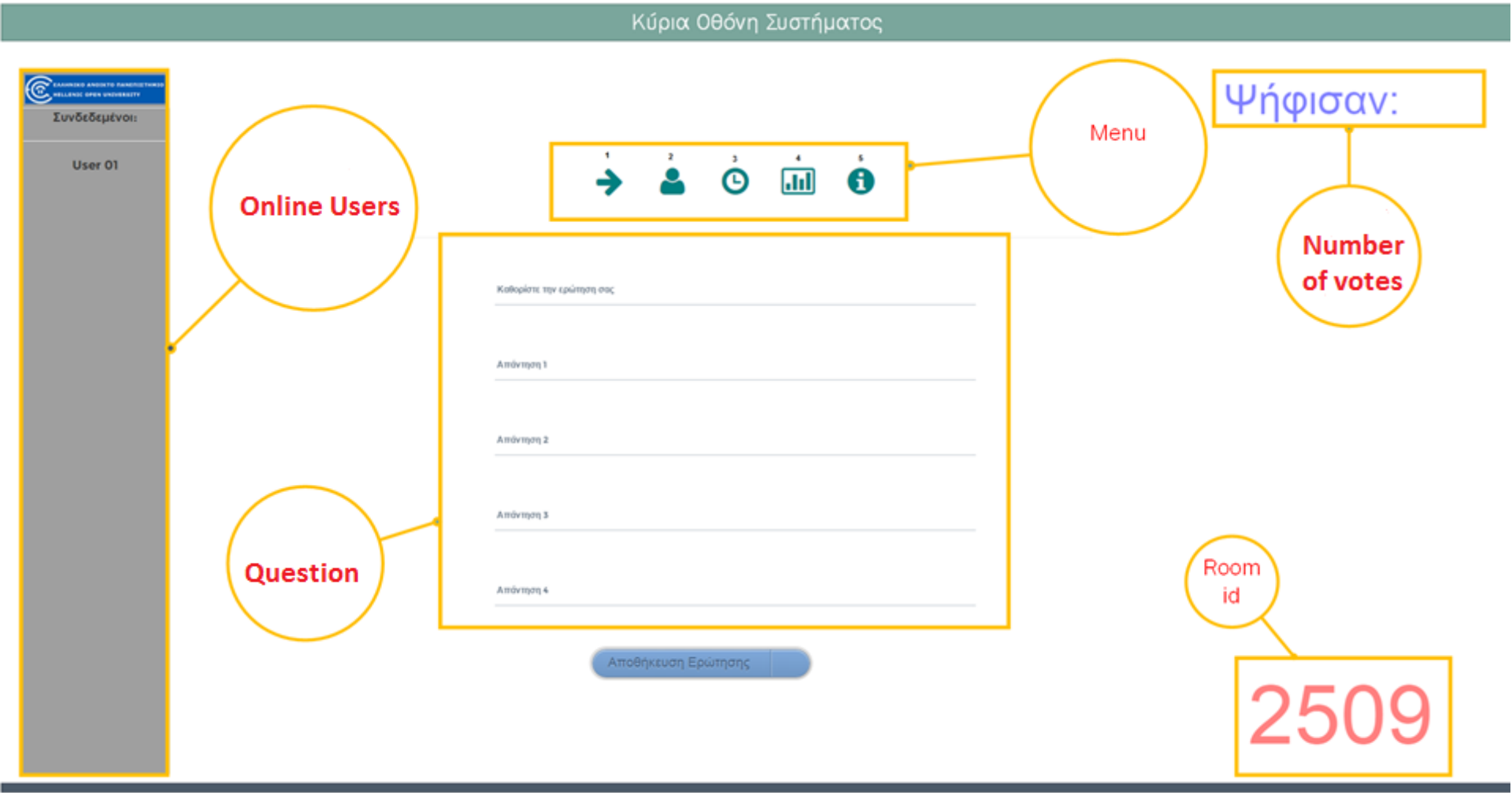
- Real time voting
- Increase student participation in educational process
- Anonymity and interaction
- Immediate and precise results which can lead the educational process
- Data available in ideal format for further investigation (learning analytics)

System Architecture & Specs

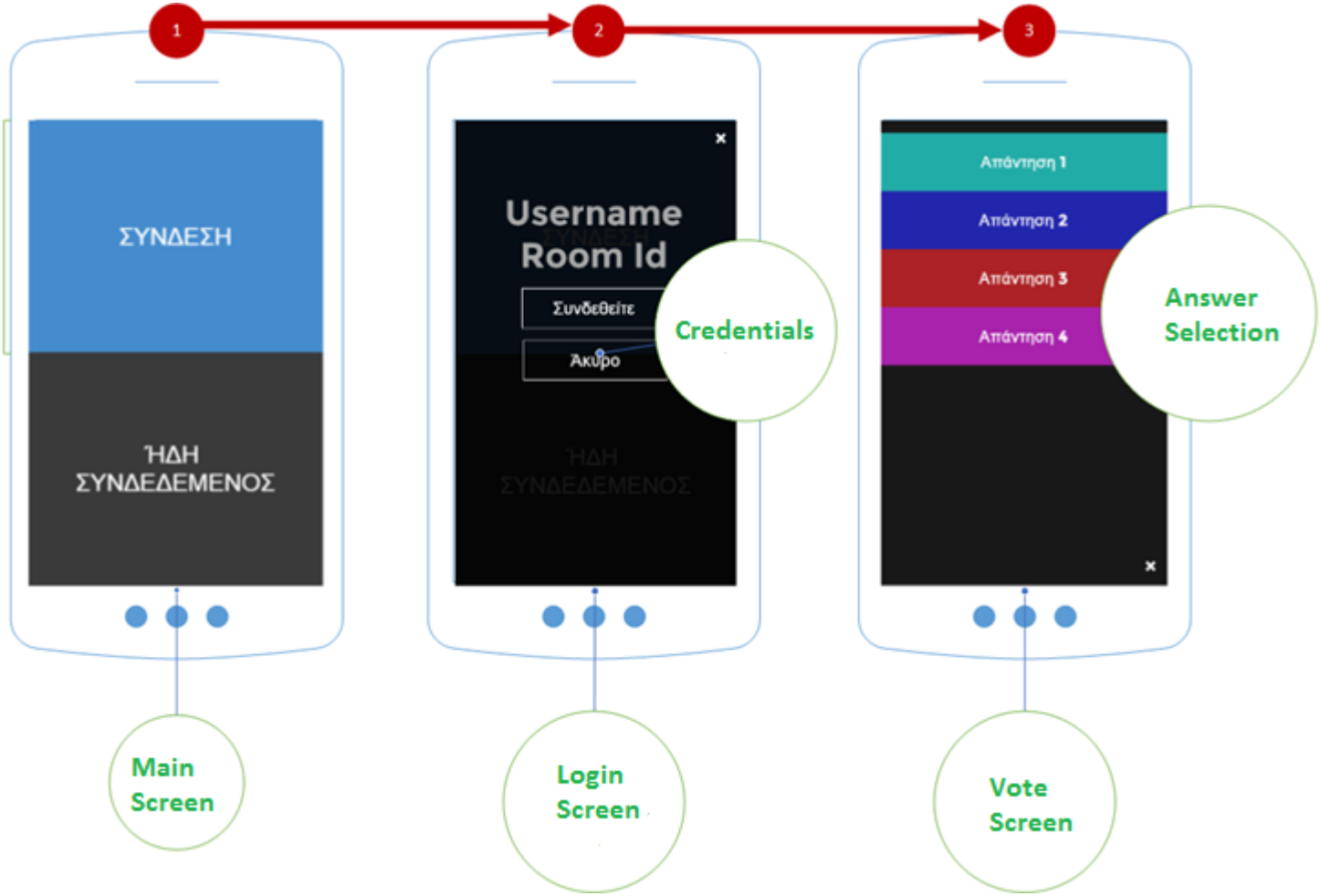
- Based on nunchuck.js, a library for mobile web-based control of browser applications
- Consists of two sub-systems
  - Controller sub-system
  - Main Application Engine sub-system
- Question definition
- Data visualization



Main Screens: System's Monitor



Main screens - Handheld Devices



Future Work

- System evaluation with real students
- System update & expansion with new capabilities
  - A priori preparation of questions (not on demand)
  - Questions can be defined by students (not only by tutors)
  - Word clouds
  - Data analysis mechanism
  - Event logs

Thank you!

Any questions?