

# **Software for increasing the vocabulary of children and learning foreign languages**

**Part 1. Development of software for desktops**

**Part 2. Development of software for mobile devices**

Performed by:

a students of 2<sup>nd</sup> course of 3ACIT-18m group

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Supervisor:

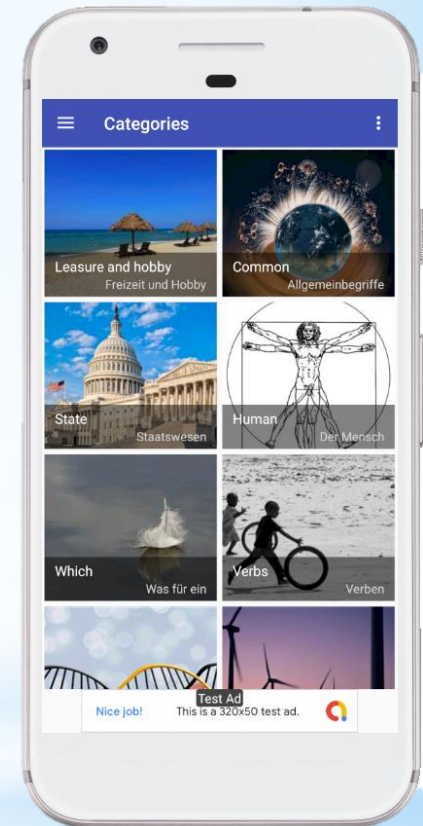
PhD. As. Prof. I. Bogach

- \* *The aim of the study* is to develop the new information system that uses new highly efficient learning tools received by analysis of the most effective learning tools and methods.

To achieve this goal the *following tasks* have been resolved:

- \* To analyze modern state of the implementation information systems into the learning process;
- \* To analyze modern information systems of the foreign language learning and methods of the vocabulary of kids replenishment, to make comparative analysis, find advantages and disadvantages;
- \* To design universal information system designed for foreign language learning and vocabulary of kids replenishment based on analyses.
- \* To inquire modern approaches and technologies that can be used in development of information system;
- \* To develop information system using inquired technologies and instruments;
- \* To test developed information system and analyze it effectiveness and expediency of implementation.

- \* ***The scientific novelty of the work*** is the design and development of a new information system for teaching children using new highly effective learning tools based on comparisons of the most modern methods.
- \* ***Object of the study*** - the process of the foreign language learning and vocabulary replenishment of kids.
- \* ***Subject of the study*** - methods and instruments of foreign languages learning and vocabulary replenishment of children.



## *Analysis of existing methods*

- \* Zaitsev Method
- \* Maria-Montessory method
- \* Olga Soboleva method
- \* Doman Method



# Analysis of existing solutions

- \* LinguaLeo
- \* Duolingo
- \* Babbel
- \* Busuu
- \* British Council
- \* Memrise

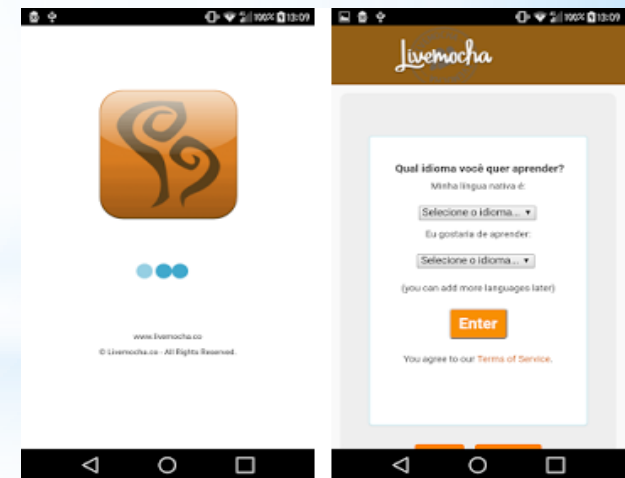




Figure 1 – Use case UML diagram

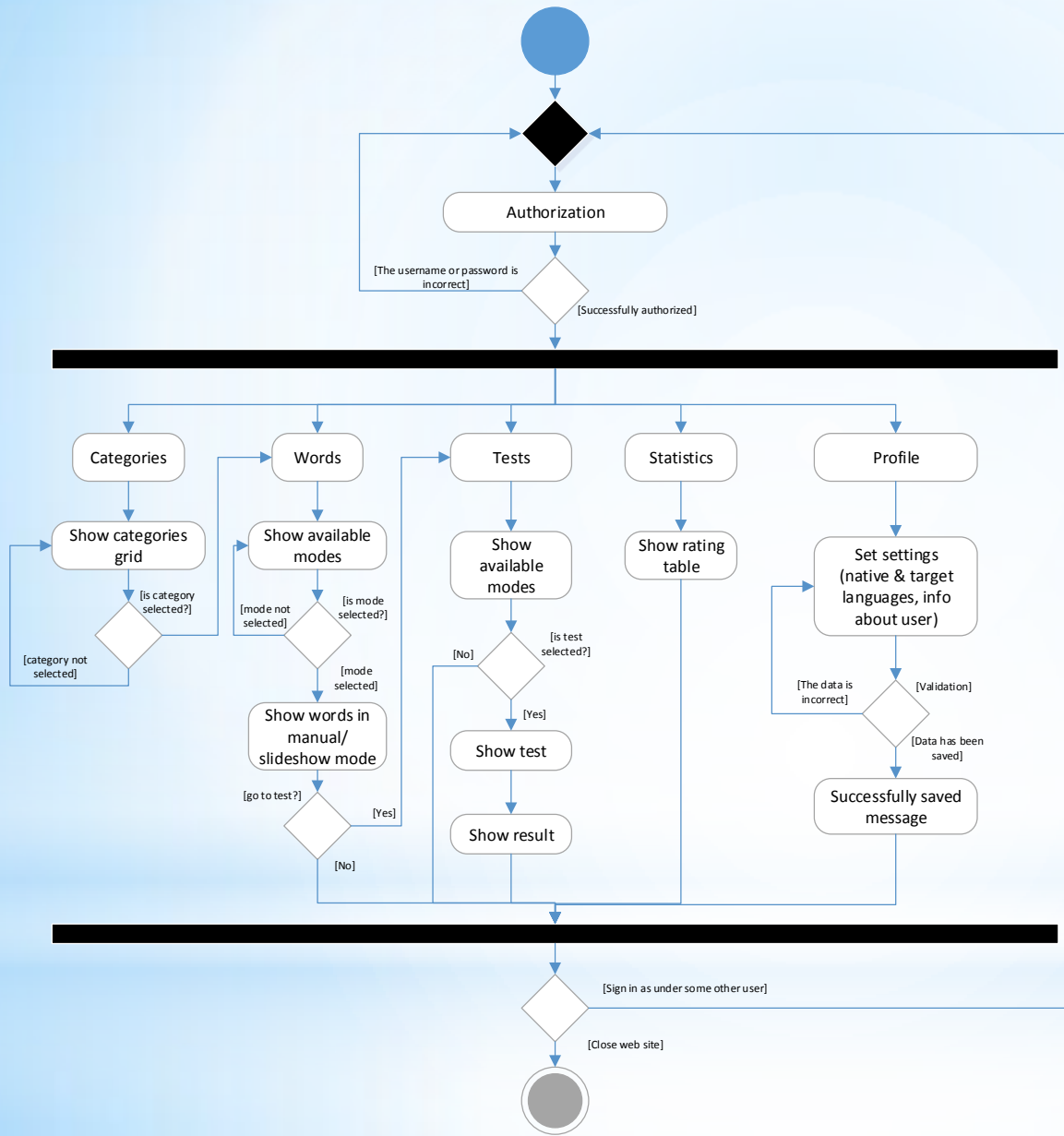


Figure 2 -  
Activity UML diagram

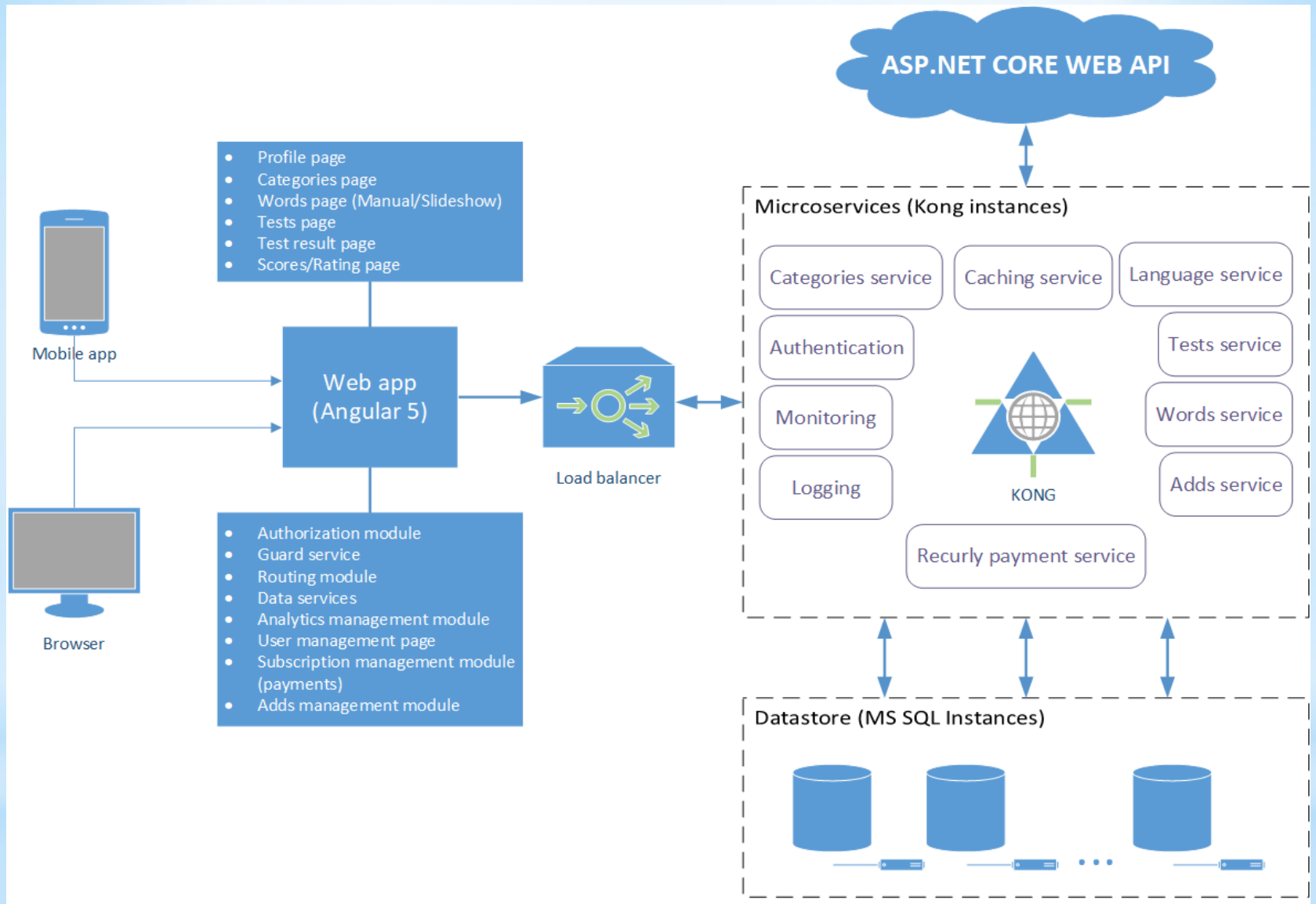


Figure 3 - Client-server architecture



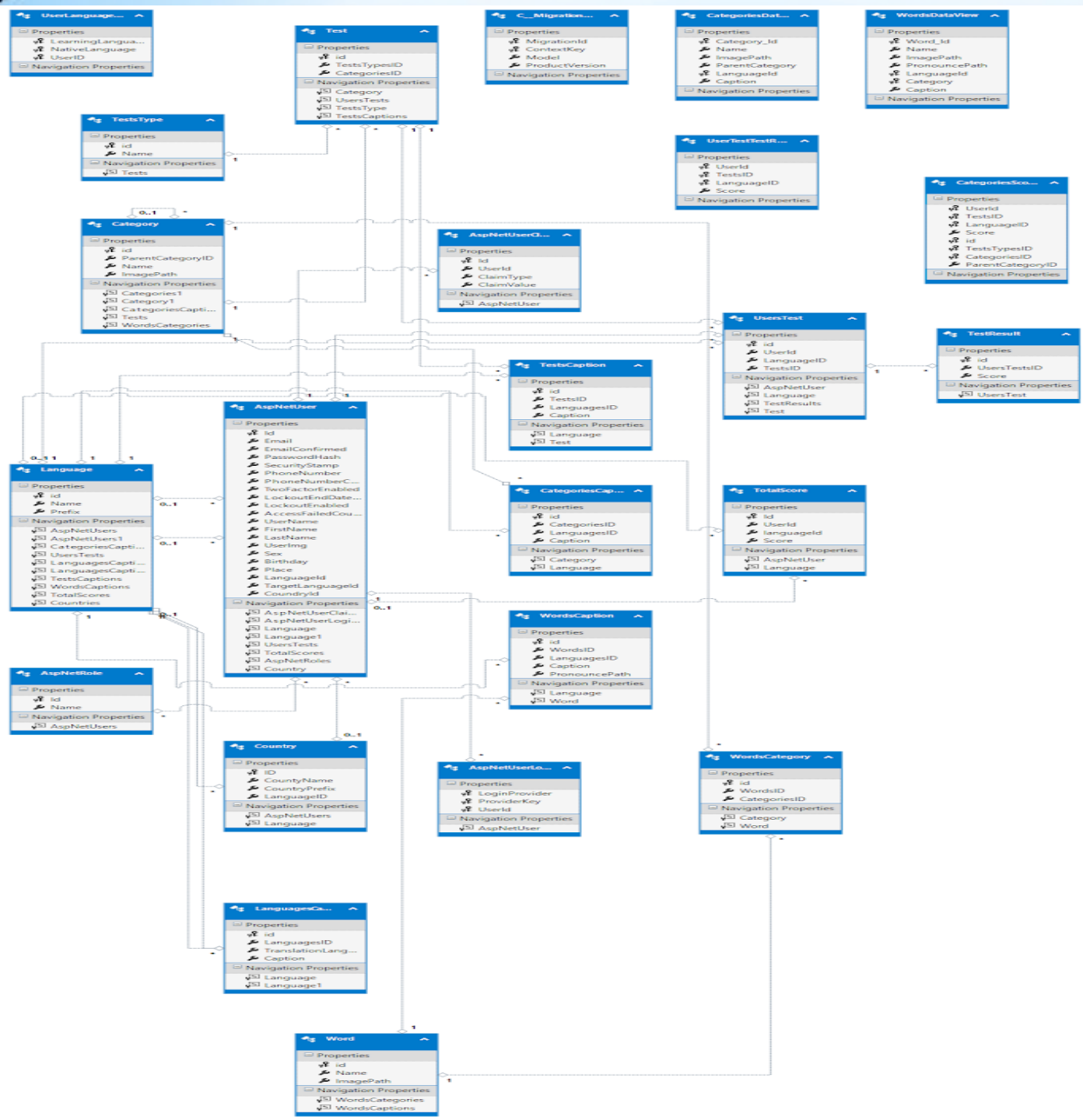


Figure 4 – Database Structure

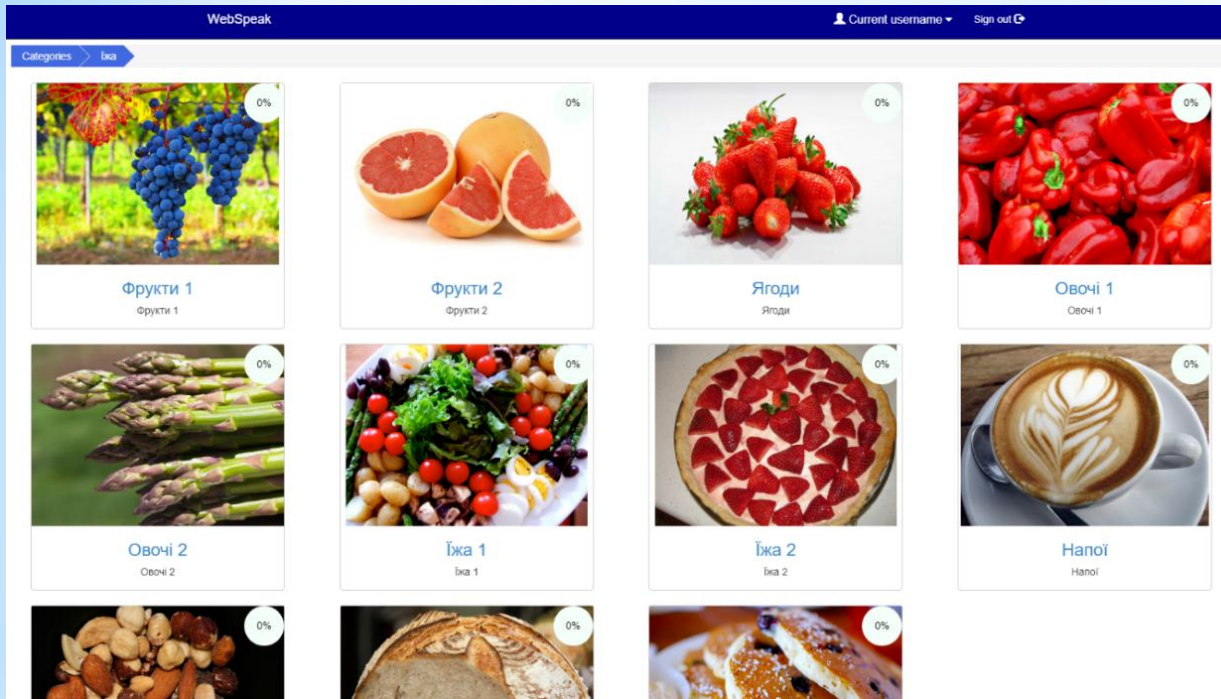


Figure 5 – Main categories page

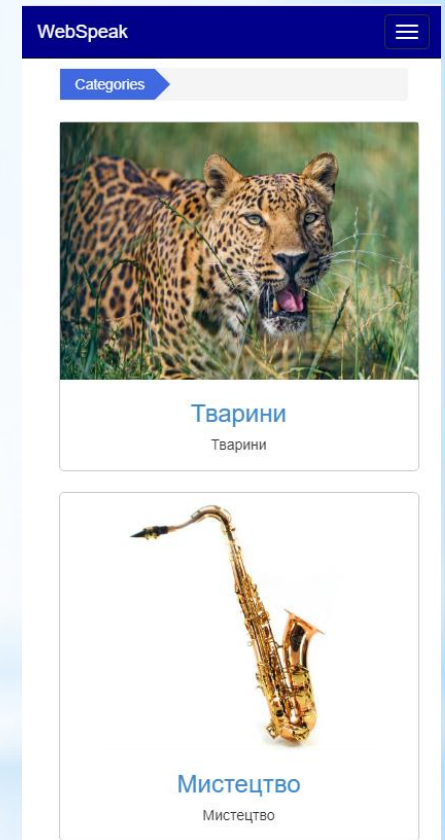


Figure 6 – Mobile devices view

WebSpeak Current username Sign out

Please select mode you want

Manual


Slideshow

Testing

One from two ★ ★ ★ ★ ★	One from four ★ ★ ★ ★ ★
One from four: text ★ ★ ★ ★ ★	One from four: listening ★ ★ ★ ★ ★
True/False ★ ★ ★ ★ ★	Spell with picture ★ ★ ★ ★ ★
Spell with voice ★ ★ ★ ★ ★	Translation - text ★ ★ ★ ★ ★
Translation - pronunciation ★ ★ ★ ★ ★	Find pair - translation ★ ★ ★ ★ ★

## Examples of different type of tests

WebSpeak Current username Sign out



цитрон

citron

2/19

Figure 7 – View, tests selecting modes

page

WebSpeak Current username Sign out

8





маракуйя

# Examples of different types of tests



WebSpeak Current username Sign out




гуава

WebSpeak Current username Sign out

## Examples of different tests



WebSpeak Current username Sign out



WebSpeak Current username Sign out



соломка

# Examples of different types of tests

WebSpeak Current username [Sign out](#)

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WebSpeak Current username [Sign out](#)

fritters  
pizza  
pelmeni  
curd tart



WebSpeak Current username [Sign out](#)



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▶


WebSpeak Current username [Sign out](#)

**СОЛОМКА**  
pizza  
pancake  
long thin biscuit sticks  
macaroni

WebSpeak Current username [Sign out](#)

pancake	млинець
vareniki	пиріжок
hotdog	вареник
pasty	хот-дог

▶

WebSpeak 

### New User Registration

Email\*

Phone Number

User name\*

Password\*

Confirm Password\*

Native Language

Target Language

Figure 8 – Sign up page

WebSpeak Current username ▾ Sign out ↗

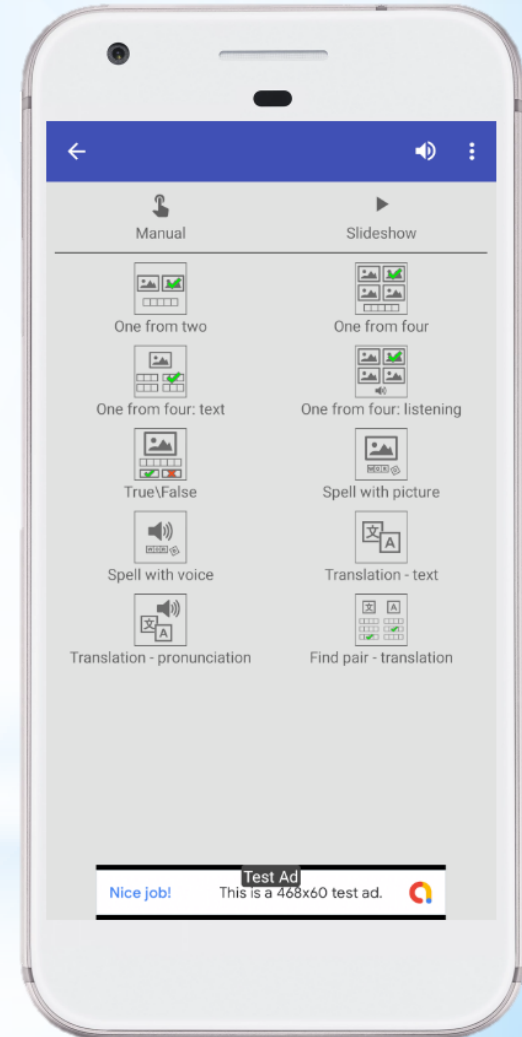
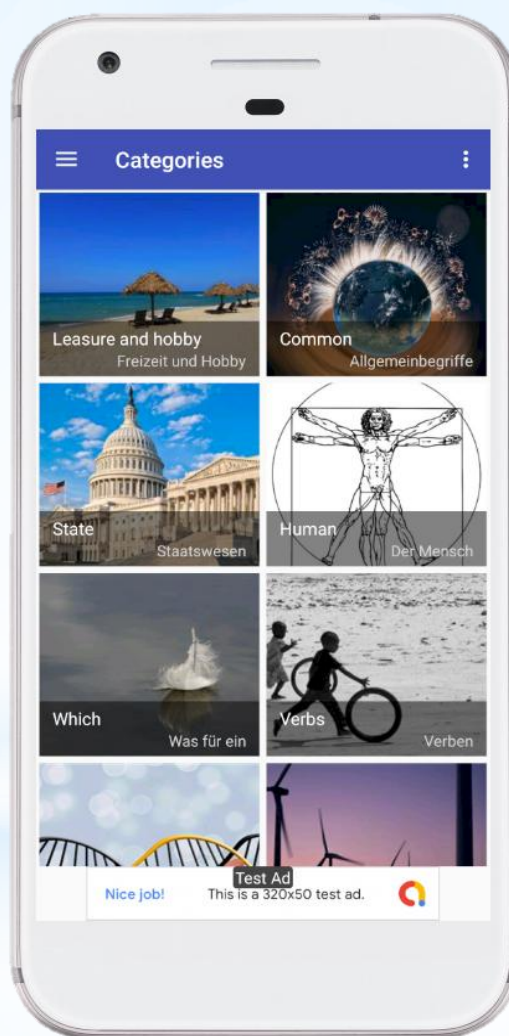
User name

Password

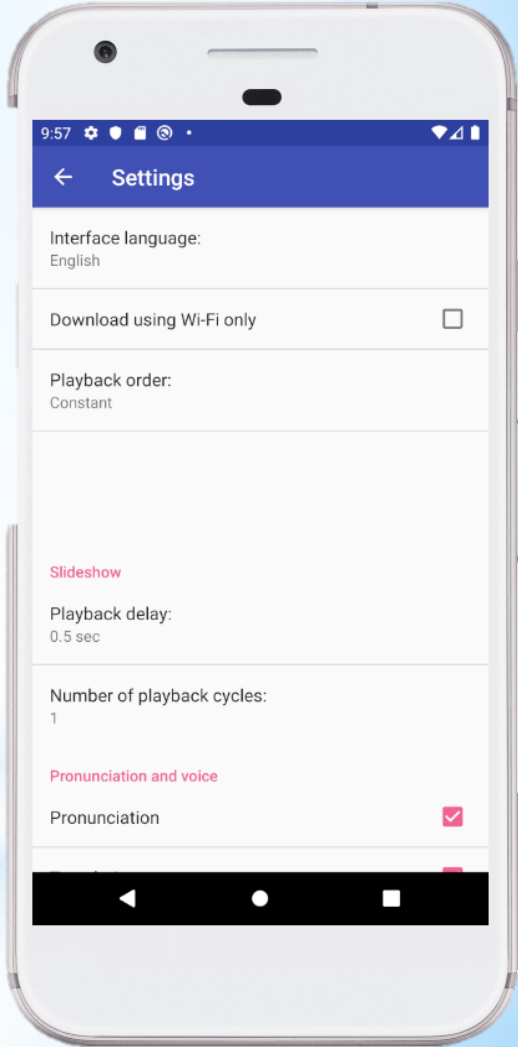
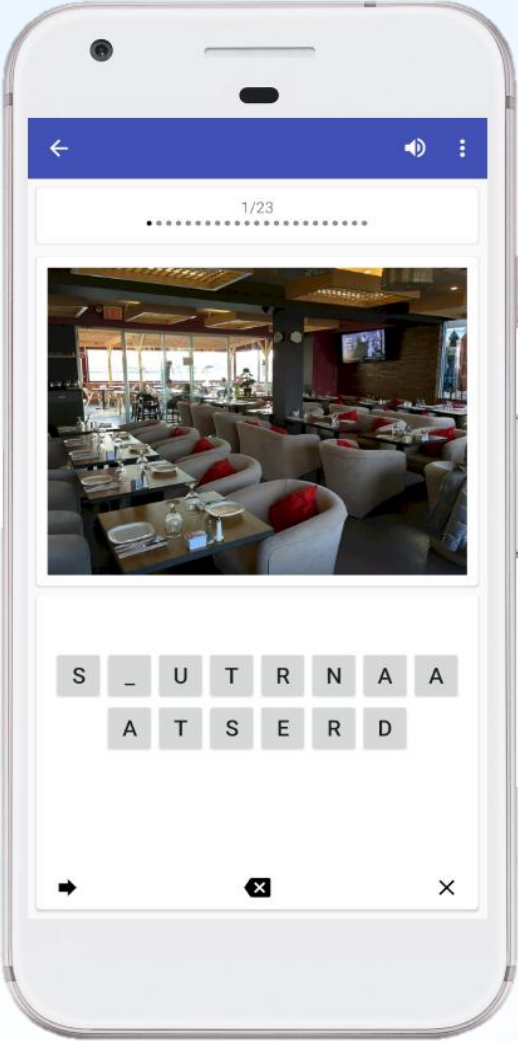
Remember on this computer

Figure 9 – Sign in page

# Mobile application screens



# Mobile application screens





\* ***The main scientific and technical result of the work*** - new information system was presented, which, unlike existing analogues, increases the efficiency of learning foreign languages and the vocabulary of children replenishment by using new highly effective methods of learning, obtained by analyzing the most effective methods of language learning used nowadays.

\*Thanks for attention