Future Skills

SESSION 2

Mobile Applications Development

The main screen 主界面

The weather card must display the weather in the user’s city (if chosen) or according to his location, the inquiry must be implemented in API.

如果用户选择了城市，天气区域必须要展示用户所选城市的天气情况。如果用户没有选择城市，则根据用户当前定位显示天气情况。请求必须利用API来实现。

The current user card must contain information such as avatar, first name, last name and the user level. The level is calculated as following:

- the difficulty of the i-number passed quest

- the approximate time which needs for passing j-number task in minutes

- the time that user spent on passing j-number task in minutes

k the number of tasks in i-number quest ( only “completed” tasks are considerated)

n - the number of completed or ongoing quests done by the user ( all quest tasks are either “COMPLETED” or have status “IN-PROGRESS”)

当前用户区域必须包含头像、名字、姓氏、用户等级等信息。用户等级计算方式如下：

游戏中每个任务的系统允许完成时间除以该任务实际完成时间的商为该任务得分。

游戏所有已完成的任务得分之和乘以游戏难度系数为该游戏总分。各游戏总分加起来的和为用户总分值。

- 第i项游戏的难度系数

- 第j 项任务系统允许完成时间，以分钟为单位。

– 用户完成第j 项任务的实际时间，以分钟为单位。

计算时，只计算用户在进行或已经完成的游戏，而非计算系统中所有游戏。针对各个任务，只考虑游戏中用户已经完成的任务，未完成的任务不计算在内。

The level must be rounded to the integral number according to the rule rounding to the nearest integer.

等级仅显示整数，在计算时，根据公式进行计算后，四舍五入取最邻近的整数。

By clicking the icon “Compass”, the window “Compass” is open.

当点击“Compass”指南针图标，指南针窗口打开。

The form of common chat must be implemented as in design. The new message must be at the bottom of the list. The history of messages is requested from the server page by page every 10 seconds. The update of the history of messages must be implemented in every 10 seconds, also the Pull-To-Refresh must be used. By clicking the button “Send”, the messages must be sent to the server. The Chat must be scrolled automatically until the new message. Messages for other users must have information such as user nickname, avatar, time of creating the message and the text. For messages of the current user, the information must have only the text and the time of creating it.

用户普通聊天窗口的形式必须根据设计图要求来实现。新消息必须出现在消息列表的最下方。历史消息可以从服务器一页一页的获取，每10秒钟获取一页。必须每10秒更新一次历史消息，同时如果用户向下拉动窗口，就更新信息（Pull-To-Refresh）。点击“send”发送按钮，消息会发送给服务器。如果收到新消息，聊天窗口必须自动向上滚动，以显示最新消息。在聊天窗口中显示聊天信息时，其他用户发送的信息必须包含发送方的昵称、头像、消息发送时间和消息内容。本用户发送的信息只包含消息内容和发送时间。

The list of user achievements must be implemented. The list must be scrolled by Swiping to the left and to the right. If the user does not have any achievements, the block of achievements must be hidden, and the list of popular quests must be extended.

用户奖章列表功能必须实现。该列表可以通过触摸屏向左向右滑动。如果用户没有获得任何奖章，则必须隐藏奖章区域，而热门游戏列表区域必须扩展，占据原有奖章区域。

Raitings排名界面

The screen should be arranged in the same way as in the design. You can use API for receiving the data.

By clicking the quest button, the screen “Quest Details” should open for selected quest.

排名界面必须和设计图一致。可以使用API来获取数据。点击界面中显示的某个游戏的按钮，则相应的“Quest Details”游戏详情界面会打开。

The Compass指南针界面

The compass should be done in the same way as in design. The direction of the arrow must match the reality. For implementing the functionality you can use approved third-party libraries, but it is prohibited to switch to third-party applications.

指南针界面必须和设计图一致。指南针中箭头的指向必须和实际相符。可以使用第三方库来实现该功能，但是不允许调用第三方的应用程序。

Quests list游戏列表界面

The screen should be arranged in the same way as in the design.

游戏列表界面必须和设计图一致。

The Quests list should be inquired from the server page by page, 10 quests in inquiry.

游戏列表信息可以从服务器一页一页的获取，每页包含10个游戏。

Two buttons should be added in the quest card:

* Details - clicking navigates to “Quest Details” screen for the quest selected;
* Favorites - clicking should add the quest to the favorites list. The selected quest icon should alter its look. Upon clicking on the selected quest the selected element should be deleted from the favorites list.

在每个游戏的游戏概述区域必须有如下两个按钮：

* Details游戏详情 – 点击该按钮，则打开相应游戏的 “Quest Details” 游戏详情界面;
* Favorites收藏 - 点击该按钮，添加该游戏至收藏列表。相应的游戏收藏图标会改变，显示该游戏被收藏。再次点击所选游戏的收藏图标，则该游戏从收藏列表中删除。（点击收藏图标可以收藏和取消收藏。）

The favourite quests list should be saved in the gadget memory.

收藏游戏列表应保存至本机内存。

The following quests rating criteria should be implemented:

* Popular - quests should be sorted out by the “rating” field in the order of decreasing;
* Difficulty - quests should be sorted out by the “difficulty” field in the order of decreasing;
* New - quests should be sorted out by the date of creation in the order of decreasing.

游戏排名规则如下：

* Popular热门 – 游戏在“rating” 栏降序排序；
* Difficulty难度 - 游戏在“difficulty” 栏降序排序；
* New最新 – 游戏在该栏按创建日期降序排序。

Upon category selection only the quests of the corresponding category should be shown.

当在搜索框中选择某类型的游戏，则只有相应类型的游戏会显示。

Quests shown in any mode should be grouped by categories. Category card should be shown at the beginning of each group.

没有进行搜索功能时，所有的游戏都以类型来分组显示。显示时，在一组同类型游戏上方显示其类型名称。

Clicking “+” button should show Alert for new tag adding. The added tags should be shown in the same way as in the design.

点击“+”按钮，应显示添加新标签的提示窗口。添加的标签应该和设计图中一致。

In the field “Words” the user can input key words for search in the name and quest description.

在“Words”关键字栏，用户可以输入关键字进行查询，游戏的名称和描述信息在搜索范围内。

Clicking “Search” button should apply for all the selected search criteria and gradation to the quests list shown.

点击“Search”按钮，应根据输入的所有搜索要求进行查询，并显示搜索结果。