A Mobile Application about the City below Us

*By **Dr Rosen Petkov***
President** of the **Student Computer Art Society (SCAS)

The cities are the buildings, but also the people and the legends related to them. All the interesting stories of outstanding personalities, who dwelled in a house or visited some place, create the image of a settlement, make it vivid and interesting. The ***Invisible Serdica*** is a mobile app that reveals objects of historical significance in the ancient city of **Serdica**, situated at the present location of the Bulgarian capital (**Sofia**). This tool enables you to get a realistic insight into some of the places, now hidden under the ground, emphasises on some of the unknown cultural aspects related to them by granting access to the especially edited multimedia tales and legends, curious stories and bib data to various sources found in the **NALIS Union Catalogue** (NALIS UC). In this way, the historical significance of the object is revealed together with its relation to emblematic figures and events.


Every object is represented by several sections – History, Legends, Multimedia, From the Books and NALIS catalogue – and by pictures, video, music and 3D models (under Multimedia). The good news is that the app is freely downloadable (from both the App Store and Google Play) and automatically installable. One you start it, it locates where you are and shows the objects around – either hidden or visible only in part. Besides, you may choose between the English or Bulgarian interface. What makes it different from similar applications is that it directs the user – through library catalogues and namely the NALIS UC – to written sources (books, primary sources, photographs,

graphic materials etc.) and shows some of the well-known architectural monuments from a different perspective – the interesting stories behind them.

Even though still in progress (just 8 objects are in) the application is already functioning. So far available are: 1. The Amphitheatre, 2. St. Sofia Basilica, 3. St. George Rotunda and its neighbourhood, 4. The Main Street (Largo), 5. The tombs under the yellow pavement, 6. The tomb under Gurko Street, 7. St. Petka Samardzhijska (of the Saddlers) Church and 8. The Western Gate.

For more information you may check both at the project's website and its facebook profile. The initiative is sponsored by the America for Bulgaria Foundation and the development itself has been undertaken by the Student Computer Art Society in partnership with the NALIS Foundation. The Museum of Sofia has also contributed with information to some of the digital objects created.

If you are interested in the development of the app (that is the various stages it went through, the specification of its functionality of the peculiarities of the mobile platforms it was designed for, the separation of the mobile part from the server part, the design of the data bases, the interface, the testing etc.) you should continue reading. A significant part of the efforts was related to the filling of the objects database, including the preparation of short videos, 3D images and digitisation of excerpts from books, graphic materials and photographs, which also requires notion of processing and online reproduction of various media (sound, moving image, pictures etc.). It should also be mentioned here that the database was designed in a way to flexibly change its content and to support its bilingual interface (English and Bulgarian). The figure below shows the interrelation between the mobile part and the server part of the app (for Android):
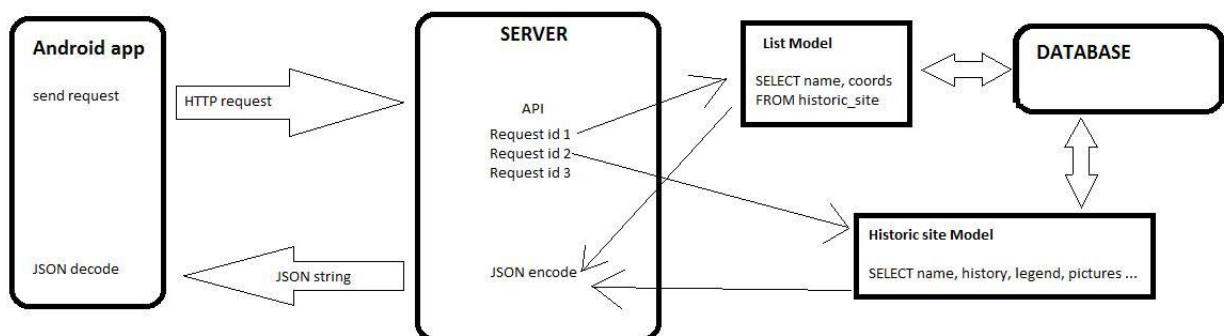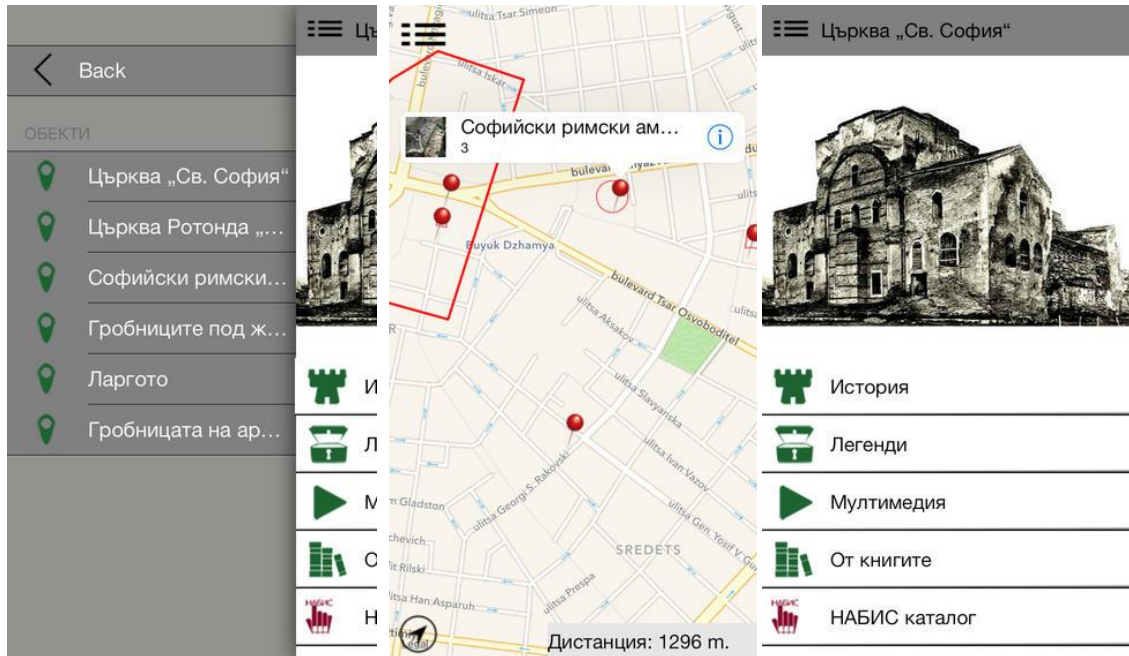

We developed forms for updating the objects' content (upload forms) under Joomla CMS, by means of which to edit the data. Our most heated discussions were concerning the functions the interface should have and concerning the way they should be technically accomplished. We have opted for the access through a map and by menus. Then we brainstormed on the best outline of these menus (having in mind the functionalities of the smart phones and the some established practices) and developed the functionalities of the menus and the relations between them.
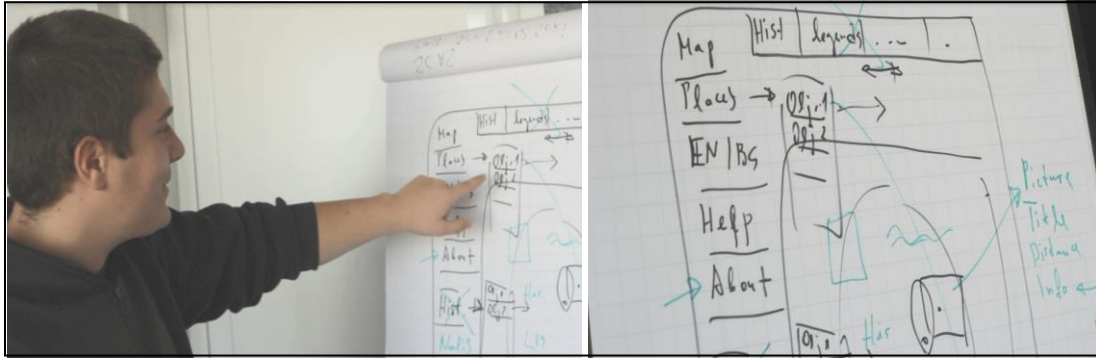
Discussion on the interface functionalities

Some random pages of the app: