## ABSTRACT

**The structure and scope of work.** Explanatory memorandum degree project consists of 5 chapters, contains 40 figures, 37 tables, 1 annex, 30 sources.

The diploma project is dedicated to the development of a mobile application for supporting art exhibitions organization.

The mission of this project is supporting the art exhibitions organization process.

The main goals are to allow the amateur artists to take part in exhibitions with their works and to facilitate the exhibitions organizers work.

The first section describes the activity process of the exhibitions organization both before and after the application's integration, provides the analysis of the existing analogues and the main development goals and tasks.

The information support section provides the description of input and output data and the database used in the application.

The section of mathematical support is dedicated to the genetic algorithm for solving the problem of collecting pictures for the art exhibition.

The software section describes the development tools with the made choices rationale, the technical provision and the server requirements and the developed software architecture.

The technological section contains the user's guide and the testing of the software.

ART EXHIBITION, PICTURES COLLECTING, GENETIC ALGORITHM, MOBILE APPLICATION