

Brief information about the project

Name of the project	№0358-18-GK “Modernisation of tourism digital content: mobile applications, panoramic 3D tours, interactive maps and QR codes”
Relevance	The contemporary development of the tourism industry is characterized by an accelerated process of digitalization and the growing necessity for the implementation of innovative technologies that ensure the high quality and accessibility of tourism services. The increasing volume of tourist flows, the transformation of consumption models, and the widespread use of mobile devices necessitate the establishment of integrated digital platforms capable of uniting informational, navigational, and service functions within a single digital environment. In the context of intensifying global competition and the prevailing trend toward the personalization of the tourist experience, a key priority is the modernization of digital content and the enhancement of interaction efficiency between tourists and service providers. However, existing platforms often fail to take into account the specific characteristics of national tourism markets, which reduces their practical relevance and constrains the potential for sustainable industry development. According to the Travel & Tourism Development Index (2024), Kazakhstan ranks 52nd among 119 countries, reflecting a moderate level of tourism industry advancement and emphasizing the necessity of further digitalization and the implementation of innovative solutions to strengthen the country’s competitiveness in the global tourism market. In Kazakhstan, the digital transformation of tourism remains in an active developmental phase, with persistent challenges such as the fragmentation of information resources, the absence of a unified national database, and insufficient integration between digital services. The adoption of modern IT solutions — including mobile applications, 3D virtual tours, interactive maps, and QR-based navigation — will enable the formation of a comprehensive digital ecosystem that ensures convenient access to tourism information while enhancing the competitiveness of domestic tourism. Given the above, the development and implementation of a project aimed at creating an innovative digital platform for the promotion of tourism resources represent a timely and strategically significant initiative aligned with the priorities of digital transformation and the advancement of intelligent technologies within the tourism sector.
Purpose	Create integrated digital content in the form of a unified portal for registration and implementation of tourism services, functioning through the official website, mobile applications and other information platforms.
Objectives	1. Development of the project concept and methodology. This stage involves defining the objectives, structure, architecture, and principal directions of the functioning of the digital platform “<i>TOURISMKAZ</i>.” It also includes the development of methodological documents and standards that regulate the processes of collecting, processing, and presenting tourism-related information in a unified digital format. 2. Pre-project research and analytics. This phase encompasses an analysis of the current level of digitalization of tourism services in Kazakhstan, an examination of target audience needs, and the identification of existing issues in online interaction between tourists and service providers. Within this analytical framework, user profiles and key market segments will be modeled to enable service personalization and improve overall operational efficiency.

	3. Design and development of the digital platform. A comprehensive technical project will be developed, including system architecture, user interfaces, security mechanisms, and component integration protocols. The <i>TOURISMKAZ</i> portal design and mobile application will be created to provide users with access to the platform's core digital services. Particular attention will be given to the development of a database of tourism sites, routes, and attractions, forming the content ecosystem of the project. 4. Integration and digital interaction among industry participants. This stage includes the incorporation of services offered by key stakeholders in the tourism sector — such as tour operators, hotels, and transportation companies — into the platform. Mechanisms for integration with the national tourism ecosystem will also be developed. The search engine will be adapted to individual user queries, QR codes will be generated for tourism sites, and 3D tours will be integrated into both the portal and mobile application interfaces. 5. System testing and improvement. A comprehensive audit of the portal will be conducted, assessing its performance, cybersecurity, and user experience (UX). Based on the results of pilot testing, an upgraded version of the mobile application will be released, incorporating user feedback and expert recommendations from the tourism sector. 6. Project implementation and promotion. To effectively promote the digital platform, informational seminars, social media marketing (SMM) campaigns, and participation in international forums will be organized to present project outcomes and attract strategic partners. Furthermore, cooperation agreements will be established with key stakeholders within the tourism industry. 7. Technical support and maintenance. This stage includes the procurement of necessary equipment, configuration of server infrastructure, and ensuring the stable operation of the system. Continuous technical and informational support will be provided to maintain the stability and security of the portal's digital infrastructure. 8. Reporting and legal protection. Upon completion of each project phase, interim and final reports will be prepared and submitted to the <i>Science Fund JSC (AO «Фонд науки»)</i>. To protect intellectual property rights, a copyright certificate will be obtained for the “<i>TourismKaz</i>” mobile application.
Expected and achieved results	– a service for selling tourism products and services has been developed (https://tourismkaz.kz/); – mobile applications “TOURISMKAZ” have been developed: - https://apps.apple.com/kz/app/tourismkaz/id1580329469 - https://play.google.com/store/apps/details?id=kz.qaztourism.customer&pli=1 – copyright certificates for the mobile applications “TOURISMKAZ” have been obtained; – panoramic 3D tours of tourist sites have been developed; – an interactive map for tourists has been created.
Research team members with their identifiers (Scopus	1. Akytymbayeva Aliya Sagyndykovna, Candidate of Geographical Sciences, Associate Professor. h-index – 7; Scopus: 55916649100; Web of Science: N-9777-2014; ORCID ID: 0000-0003-1269-4356. 2. Ismail Gulim Zharaskyzy, PhD Candidate. h-index – 3; Scopus: 57205624248; Web of Science: ABF-3183-2021; ORCID ID: 0000-0002-2330-1063.

Author ID, Researcher ID, ORCID, if available) and links to relevant profiles	3. Nuruly Yeldar, PhD Candidate. h-index – 4; Scopus: 57198426770; Web of Science: V-7078-2017; ORCID ID: 0000-0002-9321-2285. 4. Plokhikh Roman Vyacheslavovich, Doctor of Geographical Sciences, Associate Professor. h-index – 5; Scopus: 57205339295; Web of Science: AAK-3042-2020; ORCID ID: 0000-0002-4396-4489. 5. Sapiyeva Akmaral Zhenisbayevna, PhD Candidate. h-index – 3; Scopus: 58309908500; Web of Science: ABC-9046-2022; ORCID ID: 0000-0001-7717-8139. 6. Rabat Shyngys Zheksenbayuly, Bachelor of Engineering and Technology, major in 5B070300 – Information Systems. 7. Tychkov Nikita Valeryevich, Master of Science, major in 6M09200 – Tourism. 8. Kaliyeva Aida Bolatkhankyzy, Doctoral Student. h-index – 3; Scopus: 58793527700; Web of Science: AFI-4744-2022; ORCID ID: 0000-0002-1324-5192.
Usage	<i>Fields of Application:</i> – Tourism and Hospitality – Public Administration and Regional Planning – Information Technologies and Digitalization – Education and Marketing in the Field of Tourism <i>Practical Implementation:</i> – Digitalization of Kazakhstan’s tourism industry through the creation of a unified platform “TOURISMKAZ,” which ensures the integration of key market participants, including tour operators, hotels, and transport companies. – The implementation of intelligent services and mobile applications aims to provide tourists with relevant, personalized, and interactive information about destinations. – The development and integration of 3D tours and QR codes will enhance the accessibility and attractiveness of tourism sites. – The establishment of a comprehensive digital database of the country’s tourism resources will enable advanced analytics and monitoring of industry development. – Improving the efficiency of interaction between government bodies and businesses in the tourism sector will be achieved through the use of digital tools and data transparency. – The promotion of Kazakhstan’s cultural and natural heritage will be facilitated through modern IT solutions and multimedia content. – Expanding opportunities for domestic and inbound tourism promotion will be supported by strategic SMM campaigns and participation in international tourism forums. <i>Expected Benefits:</i> – Enhancing the competitiveness of Kazakhstan’s tourism industry in the international market. – Increasing tourist flows and fostering the development of domestic tourism. – Improving the investment attractiveness of the sector and stimulating the growth of small and medium-sized enterprises. – Establishing a modern digital infrastructure to ensure the sustainable development of tourism. – Improving the quality of tourism services and user satisfaction through the implementation of personalized digital solutions.

Priority Compared to Existing Analogues	– The project is aimed at integrating a web portal, mobile applications, panoramic 3D tours, interactive maps, and QR technologies into a unified digital system for promoting and managing tourist destinations. Most analogous solutions in Kazakhstan and abroad are limited either to the creation of informational portals or to isolated digital services without comprehensive integration of multimedia and interactive content. – Unlike existing platforms, the project provides for interactive visualization of tourist attractions through 3D tours and panoramic views, which significantly enhances user engagement and improves the representation of regional tourism potential. – A distinctive feature of the project is the implementation of QR codes linked to cultural and natural heritage sites, ensuring instant access to multimedia content and on-site navigation. Such technology is scarcely applied systematically within domestic tourism practices. – The project is focused on developing a next-generation mobile application that combines navigation, booking, multimedia route support, and tourist flow analytics, thereby transcending the functionality of conventional tourism catalogs and websites.
List of publications with links to them	– Plokhikh, R., Fodor, G., Shaken, A., Berghauer, S., Aktymbayeva, A., Tóth, A., Mika, M., & Dávid, L.D. (2022). INVESTIGATION OF ENVIRONMENTAL DETERMINANTS FOR AGRITOURISM DEVELOPMENT IN ALMATY REGION OF KAZAKHSTAN. <i>GeoJournal of Tourism and Geosites</i>, 41(2), 354–361. https://doi.org/10.30892/gtg.41203-837 – Kulakhmetova, G., Aktymbayeva, A., Assipova, Zh., Baoleer, B., & Koshkimbayeva, U. (2022). CURRENT PROBLEMS IN THE TOURISM AND HOTEL INDUSTRY TAKING THE WORLD'S TOURIST CITIES AS AN EXAMPLE. <i>GeoJournal of Tourism and Geosites</i>, 43(3), 841–849. https://doi.org/10.30892/gtg.43301-895 – Issakov, Y., Aktymbayeva, A., Savanchiyeva, A., Assipova, Z., Taukebayeva, M., Moldagaliyeva, A., Burakov, M., Kai, Z., & Dávid, L.D. (2025). Opportunities and perspectives of formation of the mountain tourism cluster in Almaty agglomeration. <i>Geojournal of Tourism and Geosites</i>, 58(1), 105–118. https://doi.org/10.30892/gtg.58109-1394.
Patents	<i>Copyright Certificates:</i> – Certificate of Entry into the State Register of Rights to Copyright-Protected Objects (type of copyright object: computer software). Title: Mobile Application “TourismKaz” (Consumer Version), No. 20738, dated October 8, 2021. Rights holders: Aktymbayeva A.S., Kitebayev A.E., Nuruly Y., Ismail G.Zh. https://copyright.kazpatent.kz/?!.iD=I82y – Certificate of Entry into the State Register of Rights to Copyright-Protected Objects (type of copyright object: computer software). Title: Mobile Application “TourismKaz” (Provider Version), No. 23170, dated January 31, 2022. Rights holders: Aktymbayeva A.S., Kitebayev A.E., Nuruly Y., Ismail G.Zh., Rabat Sh.Zh. https://copyright.kazpatent.kz/?!.iD=DREW
!!! Along with the completed form, please attach to email relevant photographs and video materials that can be used to visualize and present the project on the web page.	

Here is the link to the media content:

<https://drive.google.com/drive/folders/1l7m3yR-ZkpfQU0sWyn8DJ5AGeMdDkaoc?usp=sharing>