The Project of Information System of Hiking Routes

Lev Deineko, Khrytyna Mykich, Olga Makar

Lviv Polytechnic National University, Lviv, Ukraine

Information technology is one of the main factors responsible for the rapid improvement and achievement of goals in our time. Information technology has become a key factor that strengthened the education of mankind. This phenomenon is explained by the fact that people got instant access to a large number of information resources and sources, the learning platform, online training, seminars, webinars, etc. however, this result helped to achieve the mobile device during the last 10-20 years are gaining more demand and popularity.

These devices can be used extensively both during training and for leisure. It is through this statement and the idea of creating an information system of Hiking trails. This system should combine the ability to strip the mountain Hiking trails offer alternative options to overcome the way, getting customer feedback etc. implement the above system are:

- improvement of navigation in the mountainous area by creating Hiking trails, which are the best alternative to automotive subject characteristics mountainous area (obstruction, elevation changes, lack of transport routes);
- to ensure the relevance and objectivity through the involvement of the users of the system (providing feedback, introducing new routes and locations, which will be held for moderation);
- time-saving user experience planning an active vacation using quick route calculation stay on the road, the possibility of segmentation, the total segment of the route.

During the formation of the project of information system is analysis of the concept of information system, classification of such systems and their characteristics [1]. Detailed consideration are also different types of methodologies to determine the one that will meet all the requirements of the project and will help successfully implement the system as a whole. At this stage it should be noted that any methodology must provide a solution to such issues as:

- the creation of IP that meets the specified requirements, objectives and goals of the organization;
 - quality assurance of the product that is created in certain time and financial limits;
- adherence to properly support processes, changes and improvement of the system for requirements with a tendency to rapid change.

A good choice of methodology must ensure reduce the complexity of development processes through the full and exhaustive description of the processes used throughout the development lifecycle of the system [2]. An equally important step that must be completed prior to the start of the active development phase during the product life cycle is to identify the types of requirements and each one.

395

COLINS'2020, Volume II: Workshop. Lviv, Ukraine, April 23-24, 2020, ISSN 2523-4013 http://colins.in.ua, online

The proposed information system project is a viable alternative to such global market products as Google Trips and ViewRanger, as the application must ultimately combine all the features that are not presented in the above programs or not fully deployed. Therefore, we can conclude that the project of information system of hiking trails is a competitive product, which can be a full alternative to existing applications. Implementation of this system still requires careful study, determination of optimal workloads and economic justification, which will help to outline the profitability of the final product and the feasibility of implementation.

References

- Laudon C., Traver C., Management information systems, twelfth edition, Prentice Hall, 2012. - 481 p.
- Valacich J.S., Schneider C., Jessup L.M. Information systems today: managing in the digital world. Upper Saddle River, NJ: Prentice Hall. 2010. 624 p.
- Balandin VI, Bludov YV, Plakhtyenko VA Prediction in sports. Moscow: Physical Education and Sport, 1986. 193 p.
- Mochurad L., Boyko N., Bortnikova M.: Parallel Approach of the Algorithm of Finding the Optimal Solution of the Transport Problem by the Method of Potentials. In: Computational Linguistics and Intelligent Systems, COLINS, CEUR workshop proceedings, Vol-2604, 952-963. (2020).
- Bublyk, M., Matseliukh, Y., Motorniuk, U., Terebukh, M.: Intelligent System of Passenger Transportation by Autopiloted Electric Buses in Smart City. In: Computational Linguistics and Intelligent Systems, COLINS, CEUR workshop proceedings, Vol-2604, 1280-1294. (2020)
- Boreiko, O. Y., Teslyuk, V. M., Zelinskyy, A., Berezsky, O.: Development of models and means of the server part of the system for passenger traffic registration of public transport in the "smart" city. In: Eastern-European Journal of Enterprise Technologies, 1(2-85), 40-47. (2017)
- 7. Lytvynenko, V., Savina, N., Krejci, J., Voronenko, M., Yakobchuk, M., Kryvoruchko, O.: Bayesian Networks' Development Based on Noisy-MAX Nodes for Modeling Investment Processes in Transport. In: CEUR Workshop Proceedings, Vol-2386, 1-10. (2019)
- 8. Yurynets, R., Yurynets, Z., Dosyn, D., Kis, Y.: Risk Assessment Technology of Crediting with the Use of Logistic Regression Model. In: Computational linguistics and intelligent systems, COLINS, 153-162. (2019)
- Berko A. Logistic Functionally Model of Commercial Content Processing / Andriy Berko, Victoria Vysotska, Lyubomyr Chyrun // Computer Science and Information Technologies: Proc. of the VIII-th Int. Conf. CSIT'2013, 11-16 November, 2013, Lviv, Ukraine.. – Lviv: Publishing Lviv Polytechnic, 2013. – P.36-39.
- Berko A. Functionally logistic model of commercial content processing / Andriy Berko, Victoria Vysotska, Lyubomyr Chyrun // Комп'ютерні системи проектування. Теорія і практика, Вісник Національного університету "Львівська політехніка". – № 777. – Львів 2013. – Стор.30-38.
- 11. Vysotska V. Comprehensive method of commercial content support in the electronic business systems / Victoria Vysotska, Lyubomyr Chyrun, Liliya Chyrun // Комп'ютерні

396

COLINS'2020, Volume II: Workshop. Lviv, Ukraine, April 23-24, 2020, ISSN 2523-4013 http://colins.in.ua, online

- системи проектування. Теорія і практика, Вісник Національного університету "Львівська політехніка". – № 777. – Львів 2013. – Стор.21-30.
- Lytvyn, V., Vysotska, V., Demchuk, A., Demkiv, I., Ukhanska, O., Hladun, V., Kovalchuk, R., Petruchenko, O., Dzyubyk, L., Sokulska, N.: Design of the architecture of an intelligent system for distributing commercial content in the internet space based on SEOtechnologies, neural networks, and Machine Learning. In: Eastern-European Journal of Enterprise Technologies, 2(2-98), 15-34. (2019)
- 13. Kersten, W.: The Digital Transformation of the Industry the Logistics Example. In: 1st International Conference Computational Linguistics and Intelligent Systems, COLINS, http://colins.in.ua/wp-content/uploads/2017/04/CoLlnS TuS.pdf. (2017)
- Matseliukh, Y., Vysotska, V., Bublyk, M.: Intelligent System of Visual Simulation of Passenger Flows. In: Computational Linguistics and Intelligent Systems, COLINS, CEUR workshop proceedings, Vol-2604, 906-920. (2020).
- 15. Chyrun, L., Chyrun, L., Kis, Y., Rybak, L.: Automated Information System for Connection to the Access Point with Encryption WPA2 Enterprise. In: Lecture Notes in Computational Intelligence and Decision Making, 1020, 389-404. (2020)
- 16. Kis, Y., Chyrun, L., Tsymbaliak, T., Chyrun, L.: Development of System for Managers Relationship Management with Customers. In: Lecture Notes in Computational Intelligence and Decision Making, 1020, 405-421. (2020)
- Chyrun, L., Kowalska-Styczen, A., Burov, Y., Berko, A., Vasevych, A., Pelekh, I., Ryshkovets, Y.: Heterogeneous Data with Agreed Content Aggregation System Development. In: CEUR Workshop Proceedings, Vol-2386, 35-54. (2019)
- Chyrun, L., Burov, Y., Rusyn, B., Pohreliuk, L., Oleshek, O., Gozhyj, A., Bobyk, I.: Web Resource Changes Monitoring System Development. In: CEUR Workshop Proceedings, Vol-2386, 255-273. (2019)
- Gozhyj, A., Chyrun, L., Kowalska-Styczen, A., Lozynska, O.: Uniform Method of Operative Content Management in Web Systems. In: CEUR Workshop Proceedings, Vol-2136, 62-77. (2018)
- 20. Chyrun, L., Gozhyj, A., Yevseyeva, I., Dosyn, D., Tyhonov, V., Zakharchuk, M.: Web Content Monitoring System Development. In: CEUR Workshop Proceedings, Vol-2362, 126-142. (2019)