

## Information System for the Provision of Motor Transport Services

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The information system for the provision of road transport services is quite relevant today. It enables you to call the driver to take you to a designated location on your car. According to statistics, in 2017 alone in Ukraine in 9 months there were 965 road accidents involving drunk drivers, in which 86 people were killed. In particular, the number of accidents in the first 8 months of 2017 exceeds the same indicator of 2016 by almost 9%.



Figure 1. Statistics of accidents in Ukraine for 2014-2017

Every year, the number of accidents does not decrease, so information systems for the provision of transport services are needed in our country and are gaining popularity. It is with their help you can significantly reduce the number of accidents.

There are quite a few similar information systems. All of them are customer oriented and have prioritized the provision of a particular service. Yes, Uber is an advanced service that makes it possible to find and call a taxi. This system works only in large cities of Ukraine and is accessible only by phone. In this case, the plus is that the client can see the movement of the driver on the map.

Uklon is similar to Uber. It was developed by a Ukrainian programmer and became one of the first and most popular taxi booking services. Its advantage is that it works in most cities. Unlike Uber, Uklon can order taxis from both your phone and computer. Karshering occupies a niche on the bench of transport services - a minute

car rental. This service is only gaining popularity in Ukraine and operates only in Kiev. To use it, you need to install the application on your phone and register.

Most often, all of these services are used only in large taxis. In addition, they have a number of disadvantages:

- you cannot independently choose a driver to provide the service;
- taxpayers charge an additional cost for the order, which automatically increases its cost;
- awkward interface.

Creating an information system for the provision of road transport services, I analyzed all the similar ones and considered their shortcomings in order to improve the developed IP. Advantages of my developed system:

- user friendly and clear interface;
- the ability to independently select a driver from the proposed list;
- customer oriented pricing policy.

Conclusions: I have considered analogues of similar information systems. I analyzed them, taking into account all the features and drawbacks. All this was done to improve the developed IP. Using a lot of internet sources, I became convinced that the topic of creating an information system for ordering motor transport services is quite relevant today. There are many analogues, but given the growing demand, it is safe to say that it is advisable to develop a new information system capable of satisfying a more demanding user and able to offer a set of new services.

## References

1. ESPN Statistics [Access Mode]: <http://www.espn.com/nba/statistics/team/>
2. Burges J.C. Christopher A Tutorial on Supporting Vector Machines for Pattern Recognition / Christopher J.C. Burges [Access Mode]: <http://www.di.ens.fr/~mallat/papiers/svmtutorial.pdf>
3. Balandin VI, Bludov YV, Plakhtyenko VA Prediction in sports. Moscow: Physical Education and Sport, 1986. 193 p.
4. 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).
5. 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).
6. 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)
9. 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.
10. 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 системи проектування. Теорія і практика, Вісник Національного університету "Львівська політехніка". – № 777. – Львів 2013. – Стор.21-30.
12. 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 SEO-technologies, 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/CoLInS\\_TuS.pdf](http://colins.in.ua/wp-content/uploads/2017/04/CoLInS_TuS.pdf). (2017)
14. 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)
17. 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)
18. 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)
19. 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)