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| Discipline „language processors”, code: 41 |
| Annotation: The subject "Language Processors" aims at acquainting the students of "Software and Internet Technologies" specialty with the principles of functioning and the methods for creation of basic language processors - compilers and interpreters. The methods of realization of the basic phases of the compilers - lexical, syntactic, semantic analysis, generation and optimization of the source code are discussed. In addition, the principles of interpretation of different levels of intermediate code are considered. There is also a place for interpreting high-level languages ​​as well as systems for assemblers, compilers and interpreters. The key role of programming languages ​​in defining requirements to the architecture of computers is emphasized. In the laboratory exercises a high-level language compiler is developed. |
| Main issues of the syllabus content:   * Introduction to language processors. Formally defining programming languages * Lexical analysis. Organization of lexical analysis tables * Syntax analysis. Methods for syntactic analysis * Semantic analysis. Synthesis and analysis of semantic tables * Organization of memory during program execution * Generate and interpret code |