

The Internship program consists of modules presented below. For each module, a theory will be provided and, after its passing, a real educational task. When successful passing of the module, the transition to the next one will be done.

Internship schedule is coordinated with each candidate individually as of result of his interview and test task.

After passing the program, successful candidates will receive a Job Offer.

I. Web applications and role of PHP language in them

- *the Internet and how it is organized*
- *client-server architecture*
- *setting of environment for development*

II. LAMP/LEMP

- *setting and customizing CentOS*
- *linux commands*
- *setting and customizing Apache and NGINX server*
- *installation of PHP*
- *installation of MySQL*
- *GIT system control version*

III. PSR Standards

- *PSR 1*
- *PSR 2*
- *PSR 4*

IV. PHP basics

- *variables, constants*
- *expressions, operators*
- *data types and type casting*
- *Control structures*

V. Work with arrays

- *cycles*
- *arrays*
- *associative arrays*

VI. Associative programming

- *functions*
- *variable scope*
- *superglobal variables*
- *strict typization*

VII. Overview of built in variables

- *overview of built-in functions (functions for strings and arrays)*
- *recursion*
- *style coding*

VIII. Filtration, validation of data and work with form

- *work with web forms*
- *receiving and processing data from user*
- *data filtration and validation*
- *HTTP protocol basics*
- *headers of request and response*

IX. Work with files system

- *files system*
- *reading and recording data to file*

X. Cookies, Sessions

- *regular expressions*
- *work with cookie*
- *sessions*
- *difference between cookie and their sharing*

XI. Relational database model

- *SQL - requests language*
- *requests for data sampling*
- *work with join*
- *work with sets*
- *main requests to SQL*
- *requests with Group by, Having*
- *requests DDL*

XII. MySQL: database management systems

- *normalization, data integrity*
- *transactions*

- *MySQL: database management*
- *sending requests to database management system with PHP*

XIII. security in PHP

- *types of attacks*
- *chifrating*
- *hash function*

XIV. OOP

- *class and object*
- *class methods*
- *encapsulation*
- *object inheritance*
- *polymorphism*
- *magic methods*
- *abstract classes*
- *interfaces*
- *static methods*
- *constants*
- *namespaces*
- *trates*
- *autolading*
- *exclusions*
- *composition instead of inheritance*

XVI. Design patterns, SOLID

- *pattern Singleton*
- *pattern Fabric, types of fabrics*
- *pattern Observer*
- *pattern Strategy*

XVII. XREST

- *REST architecture*
- *Difference between REST and SOAP*
- *REST services maturity model*
- *JsonAPI specification*

XVIII. MySQL

- *syntax*
- *tables joining*
- *indexes*

- *requests optimization*

XIX. Framework Laravel

- *overview*
- *routings*
- *view*
- *models*
- *eloquent*
- *builder (difference from ORM)*
- *service container & service providers*
- *authorization and authentication*
- *events*
- *laravel queues\jobs*