

Students

15-55
Years old

NOVA
it academy



Testing by QA

772 academic hours
in total for the course

368 academic hours
classroom studies

1 year course
duration

368 academic hours
independent work

Training program as it should be! *

*To the world's leading IT companies.

Overview of IT business: technologies and terms

Phases of the software development process

Process Methodologies software development security:

- Waterfall, spiral and interactive agile, scrum, xp) models, RUP, MSF.

Analysis of existing models and methods boots

The role and place of QA in the process of software development, testing and QA

Introduction to testing

Goals and tasks of the tester in the team

Testing theory:

- An approach.
- Technologies.
- Levels.
- Process.
- Components.

Defects

- Defect life cycle.
- Types of defects.
- Description of defects.

Tests

- Types of tests.
- Organization of tests.
- Creation of tests.

Testing complex software solutions and complex systems

Practice: Writing Tests, Testing name, description

From testing to QA

- Goals and objectives of QA.
- Testing cost.
- The cost of the defect.

Requirements, an introduction to bug tracking systems

Introduction to planning:

- Planning tasks.
- Test plan.

QA process:

- Initialization.
- Goals.
- Priorities.
- Timing.
- Risks.

QA processes:

- Preparation.
- Testing.
- Reporting.
- Final phase.

Practical session on QA processes

MS Project

Testing specific areas:

- Usability.
- I18N/I10N.
- MLU.
- Mobile devices.
- Features of testing web applications.

Software testing process

Overview of tools to support the development and testing process:

Version control systems:

- What is version control and why is it needed.
- CVS, SVN, GIT, Mercurial.

Basic principles of work with SVN

Basic principles of working with GIT

Overview of the SCRUM methodology

Features of the SCRUM methodology

- Communication issues: within the team, with the manager, with subordinates, with customers.

ISTQB Certification

- Overview of the certification process.
- Overview of materials and requirements.

Interview

- Sample questions.
- Successful Interview Strategy.
- Analysis of situations that arise during the interview.

What is programming, an introduction to the Java programming language

- Programming, programming language simulations and algorithms.
- The concept of a software project.
- Separation of programming languages to low, medium, high level.
- Separation of programming languages translation into interpreters and compilers.
- Introduction to Java.

Variables and data types

- Variables and data types.
- Data types.
- Variables.
- Strings. Use of strings.
- Organization of data entry with console.
- Constants and literals.
- Operators.
- Examples of building programs with using block diagrams.

Logical operators and branch operators

- Data type conversion.
- logical operators.
- Operator precedence tables.
- Logical choice constructs. Branch operators.

Introduction to database theory

- Introduction to database theory Introduction to database theory.
- DBMS MS SQL Server 2016. Advantages and disadvantages. Version overview and editions.
- Installation of MS SQL Server 2016 Express.
- Utilities MS SQL Server 2016.
- Working with the database.
- Basics of interaction with the DBMS, MS SQL, Server 2016.
- Requests.

SELECT, INSERT, UPDATE, DELETE

- The SELECT statement.
- Keywords IN, BETWEEN, LIKE.
- INSERT, UPDATE, DELETE statement.

Multi-table databases

- Anomalies in interaction with a single-table database.
- Principles of creating a multi-table database.
- Multi-table queries.

Aggregation functions

- Aggregation functions.
- The concept of grouping. GROUP BY keyword.
- Keyword HAVING. Comparative analysis of HAVING and WHERE.
- Subqueries.

Associations

- Operators to use in subqueries.
- Combining query results.
- Combination JOINS.

Views stored procedures, triggers, user-defined functions

- The concept of a transaction.
- Using transactions.
- Representation.
- Stored procedures.
- User functions.
- Triggers.

EXAM

Windows Server 2016

- Installation.
- Services configuration: IIS, DHCP, DNS, File Server, MS SQL Server.

Practical session on Windows

Linux

- Installation.
- Demon setup: apache, dhcp, DNS, ftp, mysql.

Introduction to network technologies

- OSI model.
- Layers of the OSI model.
- IP addressing.
- Routing principles.
- Protocols IP, UDP, TCP, DHCP.
- Mail protocols SMTP, IMAP, POP3.
- File protocols FTP, TFTP.

What is automated testing

- Test automation.
- Importance of test automation.
- Goals and objectives of automated testing.

- Place of automated testing in the development process product.
- Stages of automated testing.
- Approaches to automated testing.
- The need for knowledge of the basics of HTML / CSS for the tester.

Introduction to Web technologies, HTML structure, text formatting with using HTML

- Introduction to HTML.
- Introduction to markup languages. HTML hypertext markup language.
- Tags main element of the structure html tours. Rules for writing tags and their attributes in the XHTML standard on the example of , <i> tags, Syntax differences between HTML4 and XHTML.
- Basic tag writing errors.
- Basic structure of an XHTML document. Elements and their purpose.
- Page encodings and <meta> tags.
- Tag classification: linear and block.
- Text formatting model: headings and paragraphs. Elements <p>, <h1>, <h2>. Aligning text in block elements - align attribute.
- Tag classification: Boolean and physical formatting.
- Working with images and links.
- Practice: creating a web page.

Formatting with CSS

- CSS - Cascading Style Sheets.
- Tags without formatting: <div> - block, linear.
- Analogy of HTML and CSS on an example line and block tags.
- Using the class and id attributes class and id to set styles.
- Using external CSS style files.
- Practice: text formatting with CSS.

Tables

- Creating a simple table. The <table> <tr> and <td> tags.
- Merging Cells: Attributes colspan, rowspan.
- Tags for logical structuring of tables: <thead>, <tbody>, <tfoot>. Logical grouping tags columns: <colgroup>, <col>.
- Table frame control - attributes frame, rules.
- Practice: creating complex tables.
- Basics of tabular layout tables.
- An example of a tabular layout; her minuses.

Forms, frames

- Introduction to forms.
- Form controls.
- Create forms using HTML.
- Formatting Form Elements with CSS.
- Frames and their structure (theoretical information).

Introduction to Selenium

- Selenium.
- The need to use Selenium.
- Selenium architecture.
- What is WebDriver?
- Selenium installation.

Use of tests and commands

- What is a test?
- Test in Selenium.
- Recording and running a test Selenium.
- Selenese.
- The concept of a command in Selenium.
- Command types.
- Command Usage Examples.



Verification in Selenium, WebDriver

- Verification in Selenium.
- Assert and verify.
- Examples of using.
- The concept of «test suite».
- Examples of using.
- WebDriver.
- The concept of Waits.

Introduction to XML, XPath's in WebDriver

- What is XML?
- The history of the creation of XML.
- Goals and objectives of XML.
- XML document.
- Syntax and structure of the XML document.
- Describing the structure of an XML document using a DTD.
- XML namespaces.
- The concept of a schema, differences between schemas and DTDs.
- XML parsers.
- Examples of creating XML documents.
- XML documentation.
- XPath.

ISelenium Server

- Selenium Server.
- Goals and objectives of Selenium Server.
- Selenium Grid.
- Goals and objectives of Selenium Grid.
- Setting up and running Selenium Server.
- Using Selenium Server.
- Setting up and running Selenium Grid.
- Using Selenium Grid.

ICreation of a framework for testing in Selenium

- What is framework?
- The need to create framework.
- Framework creation principles.
- Framework architecture.
- Examples of using framework.

Product analysis for test automation, automated testing of web services and mobile applications

- Overview of different tools for testing.
- Automated testing of web services.
- Automated testing of mobile applications.

AT THE END OF THE COURSE YOU WILL LEARN:

- Use software testing tools for mobile and desktop applications, as well as web projects
- Test different applications
- Use different version control systems
- Apply the basics of web technologies, programming, system administration, and understand the principles of working with databases for their use in automated testing
- Create a test plan
- Work with bug trackers
- Carry out automated testing using various software
- Understand the architecture and principles of using Selenium
- Analyze the structure of web pages and interact with them
- Select the best tools for automated testing
- Create scripts in Selenium to test web pages
- Carry out automated testing using various software
- Choose optimal testing methods
- Use load testing methods
- Understand SQL Structured Query Language
- Know how to create multi-table queries
- Understand how subqueries and aggregate functions work
- Be able to normalize databases
- Use stored procedures, triggers, views, user-defined functions
- Prepare for an interview for a QA engineer position
- Use the Hibernate library

FINAL PROJECT

23

years on the market

200+

branches

4,8

average rating

2 800

lectures

72 000+

students

1 000+

reviews

Philippines:

11th Drive, corner 9th Ave, unit 1214,
Taguig, NCR phone 02 70057853

Malaysia:

A2-6-3, Soho Suites KLCC, 20 Jalan
Perak, Kuala Lumpur, 50450

Indonesia:

Jl. Mayjend. Jonosewojo No. Kav. 3,
Pradahkalikendal, Kec. Dukuhpakis,
Surabaya, Jawa Timur 60225
+62 811-909-047

Colombia:

Por Calle 14, El Poblado, Medellín,
Antioquia, Colombia
+57 322 5188696

Mexico:

Mexico, Naukalpan Av. Fuentes de
Satélite 146 PH, D2
5515737748

Puebla, Blvd Interamericano 5838,
Lomas de Angelópolis, 72830 San
Andrés Cholula, Pue
22 1572 8200

Republic of South Africa:

62 Fairway Close, Parow, Cape Town,
7500
+27 78 769 4819
021 879 30 86

Turkey:

İzmir; Konak; Akdeniz district Kazım
dirik street Gayret Han No of building:
4 floor: 2/24 0232 335 15 74

İstanbul, Osmanaga district
Suleymanpaşa street, building: 2-4,
floor: 5 Kadıkoy-İstanbul
+902167069793

Antalya, Muratpaşa district, Kışla
neighborhood, 45. Street, Building
number: 20 Door number: 101-102
02422550269

Mersin, Mezitli, Atatürk district.
31087 street. 2/A
03245033001

Bursa, Fethiye neighbourhood,
Alev(240) Street, Corner Plus business
center site Corner Plaza no: 10 inner
door 70 Nilüfer
02243220704

*data is valid
as of the beginning of 2024