

SELENIUM TESTING COURSE CONTENT

PRE-SELENIUM

Core Java Programming

- Introduction to Java
- History of java
- Comparison with C and C++]
- Features of Java
- JDK,JRE,JVM overview
- JDK Directory Structure
- Basic Java Program through command prompt

Installation and Setup:

- Download and install JDK/JRE
- Set Environment variables
- Download Eclipse IDE
- Coding standards followed in Eclipse
- Naming standards followed in Eclipse
- Features of Eclipse IDE

Packages

- Introduction to packages
- Need for packages
- package declaration in Java
- Import statement in Java
- static import in java
- Resolving name clashes in packages

OOPS and its application in Java:

- Classes and Objects
- Defining a class;Defining instance variables and methods
- Defining a class, variable and method in Java
- Method Signature; method call
- Creating objects out of a class
- Method calls via object references

Abstraction

- Interfaces and Abstract classes
- Abstract and non-abstract methods



Inheritance

- extends and implements keywords in Java
- Super class and Sub class
- this keyword, super keyword in Java for inheritance
- Concrete classes in Java
- Aggregation and Association

Polymorphism:

- Compile time polymorphism -- Overloading of methods
- Run time polymorphism -- Overriding of methods
- Method Overriding rules and method overloading rules
- Introduction to Object class and it's methods

Encapsulation:

- Protection of data
- Java Bean, POJO
- Getters/Setters
- Memory management in Java
- Heap
- Stack
- Garbage Collection

Data types:

- Primitive Datatypes
- Datatype Declarations
- Datatype Ranges and its calculation
- Memory allocation for each Datatype
- Variable Names Conventions
- Numeric Literals, Character Literals
- String Literals
- Arrays
- Array of Object References
- Enumerated Data Types
- Non-Primitive Datatypes

Operators:

- Expressions in Java
- Assignment Operator
- Arithmetic Operators
- Relational Operators
- Logical Operators

- Conditional Operators
- Operator Precedence
- Implicit Type Conversions
- Upcasting and downcasting
- Strict typing
- Type conversion

Conditional Control Statements

- Flowchart for conditional statements
- If statement
- If-else statement
- If-else-if statement
- Switch statement
- String in switch case

Looping Control Statements

- For loop
- While loop
- Do-while loop
- Unconditional Control Statements/Jump Statements
- break statement
- labelled break statement
- return statement
- continue statement

Scanner class:

- Diff between Scanner and BufferedReader
- Methods to get Primitive datatypes
- match method
- delimiter method
- findInLine method
- skip,close method
- useRadix method
- useLocale method
- IOException method

De-bugging:

- Launching and debugging java code
- Breakpoints
- Debug perspective
- Stepping commands
- Trace point,Trigger point

- Breakpoints grouping
- Breakpoints sorting

Access Modifiers in Java

- Role of access modifiers
- Private access modifier
- Role of private constructor
- Default access modifier
- Protected access modifier
- Public access modifier
- Access Modifier with Method Overriding

Types of variable:

- variable
- variable memory storage
- Static variable
- Local variable
- Global/Instance Variable
- variable widening
- variable narrowing

Constructor:

- Constructor
- Default constructor
- Non-arg based constructor
- Parameterised constructor
- Difference between Constructor and Method
- Constructor chaining
- this and super method
- constructor overloading

Singleton class:

- Singleton class
- Normal class vs singleton class
- Use of Singleton class
- JDBC Using Model Object and Singleton Class
- Collections.singleton() method in Java
- Private Constructors and Singleton Classes in Java
- Java Singleton Design Pattern Practices

Factory Design Pattern:

- Factory Design Pattern:
- Advantage of Factory Design Pattern:
- Implementing Factory Design Pattern:
- Abstract Factory Design Pattern
- Overview of other creational design pattern
- Builder design pattern

String:

- String datatype
- String declaration
- String Tokenizer
- String methods
- String types
- String memory allocation
- Manipulations in string
- Interfaces and classes in String

Arrays:

- Declaration
- Instantiation
- Initialization of Java Array
- Single dimensional Array
- Multi-dimensional Array
- Anonymous Array
- Cloning an Array

Wrapper class:

- Need of Wrapper classes
- Autoboxing
- Unboxing
- Primitive Wrapper Classes
- Utility methods of Wrapper classes
- valueOf and xxxValue methods
- parseXxx and toString methods

Generics:

- Need for Generics
- How Generics works in Java
- Types of Generics
- Generic Type Class or Interface
- Generic Type Method or Constructor
- Generic Type Arrays

- Generics with Wildcards
- Unbounded Wildcards
- Bounded Wildcards

Collection:

- Java Collection Framework
- Hierarchy of Collection Framework
- Collection interface
- Iterator interface
- Methods of collection interface
- List
- Set
- Queue
- Collections utility class

Map:

- Introduction to Map interface
- Methods in Map
- Iterating a Map
- Map hierarchy
- Sorted Map
- LinkedHashMap
- TreeMap
- HashMap

Exception handling:

- Exception types
- Usage of Try
- Usage of Catch
- Usage of Throw
- Usage of Throws
- Usage of Finally
- Built-in Exceptions,
- Creating own Exception classes

Java Regex:

- Regular expression
- MatchResult interface
- Matcher class
- Pattern class
- PatternSyntaxException class
- Regex Quantifiers

- Regular Expression Character classes
- Regex Metacharacters

File operations:

- File Handling in Java
- Stream
- Java File Methods
- File Operations in Java
- File reader
- File writer
- Buffered Reader
- File permissions

Date and Time:

- Method & Description
- Date Comparison
- Date Formatting Using SimpleDateFormat
- Simple DateFormat Format Codes
- Date Formatting Using printf
- Date and Time Conversion Characters
- Sleeping for a While
- GregorianCalendar Class

Serialization:

- Serialization in Java
- Need for Serialization in Java
- Serializing an Object
- Deserializing an object
- Advantages and Disadvantages of Serialization in Java
- Practical examples of Serialization in Java
- Externalizable Interface
- Transient Keyword
- Serial Version UID
- Controversies of Serialization in Java
- Best Practices while using Serialization in Java

XML:

- Introduction to XML
- Read XML File in Java
- Java DOM Parser
- Java SAX Parser

- Read XML File in Java Using eclipse
- Reading XML file using DOM Parser
- Reading XML file using SAX parser

JSON:

- JSONArray
- JSONParser
- JSONObject
- Json.simple maven dependency
- Write JSON to file with json-simple
- Read JSON from file with json-simple
- Download Sourcecode

CSV:

- Read CSV File in Java
- CSV file creation
- How to create CSV File
- Java Scanner class
- Java String.split() method
- Using OpenCSV API
- Reading CSV file with a different separator

Multi-threading:

- Concepts of Thread
- Thread life cycle
- Creating threads using Thread class and Runnable interface
- Synchronization
- Thread priorities
- Inter Thread communication.

jdk 1.5 features:

- Autoboxing
- Generics
- Enhanced for loop
- Varargs
- Enums
- Static imports
- C-lang printf()
- StringBuilder
- Metadata

jdk 1.7 features:

- String in Switch Expression.
- Underscores Between Digits in Numeric Literals.
- Integral Types as Binary Literals.
- Handling multiple exceptions in a single catch block.
- Try-with-resources Statement.
- Automatic Type Inference in Generic object instantiation.

jdk 1.8 features:

- Lambda Expression
- Method references
- Functional interfaces
- Interface changes: Default and static methods
- Streams
- Stream filter
- forEach()
- Collectors class with example
- StringJoiner class with example
- Optional class with example
- Arrays Parallel Sort

Memory management:

- JVM Memory Structure
- Heap area
- Method Area
- JVM Stacks
- Native method Stacks
- Program counter (PC) registers
- Working of Garbage Collector
- Memory leaks in Java

SQL:

- Introduction to SQL
- Table creation
- SQL Insert
- SQL Update
- Applying Constraints
- SQL Syntax
- SQL Data Types
- SQL Operators
- SQL Database
- SQL Select
- SQL Clause

- SQL Delete
- SQL Join
- SQL Keys

JDBC Connection:

- Establishing connection
- Types of JDBC driver
- JDBC-ODBC Bridge Driver,
- Native Driver,
- Network Protocol Driver, and
- Thin Driver
- Running query
- Extracting Result

Java programs:

- Check the given number is odd or not
- Check the given number is even or not
- Print first 100 odd numbers
- Print first 100 even numbers
- Count the number of even numbers from 1 to 100
- Count the number of odd numbers from 1 to 100
- Find the factorial of a given number
- Generating fibonacci series
- Find the reverse of the given number
- Check the given number is palindrome or not
- Check the given number is armstrong or not
- Find the sum of the digits in a number
- Find the number of digits in a number
- Find the product of digits in a number
- Find the reverse of the string
- Check the given string is palindrome or not
- Print each word's first letter of the given string in capital number
- Print the duplicate numbers in array
- Print the Unique elements in array
- Remove the duplicate character in string
- Remove the duplicate words in string
- Write code to print patterns
- Pre-increment post increment example
- prime number or not
- Anagram or not
- Usage of Collections.min(),max() and sort()
- Usage of Arrays.min(),max() and sort()

- Print numbers as String

Coding standards:

- Coding Standards for Classes
- Coding Standards for Interface
- Coding Standards for Methods
- Coding Standards for Variables
- Coding Standards for Constants
- Java Bean Coding Standards
- Getter Methods
- Setter Methods

SELENIUM:

Selenium Introduction

- Types of Applications (Desktop, Web, Mobile, Hybrid)
- Software Testing Methods (Manual and Test Automation).
- Selenium Introduction
- Selenium Components
- Selenium vs. Other Testing Tools
- Advantages of Selenium
- Integration of Selenium with Other Tools

Selenium Components:

- Purposes and functionalities
- Understanding the components
- Selenium RC
- Selenium IDE
- Selenium webdriver
- Selenium Grid
- When to use Grid

WebDriver

- Third party drivers and plugins
- Driver requirements
- What is WebDriver
- Selenium Architecture
- Simple Program in Selenium WebDriver
- WebDriver methods

Types Of Browser Launch

- Desired Capability
- Downloading driver file
- Downloading selenium jarfile
- Chrome Browser Launching
- Safari Browser Launching
- InternetExplorer Browser Launching
- Installing FireBug and FirePath
- Firefox Browser Launching

Locators

- Inspecting elements in different browsers .
- Id
- name
- classname
- xpath
- tagName
- linkText
- partiallyLinkText
- cssSelector

Xpath

- Contains Xpath
- Text Xpath
- Text Contains Xpath
- Attribute with contains
- Following
- Ancestor
- Child
- Preceding
- Following-sibling
- Parent
- Self
- Descendant

Types Of Xpath

- Relative Xpath
- Absolute Xpath
- Difference between Absolute Xpath and Relative Xpath
- Limitations in Absolute xpath
- Advantages of using Relative xpath

Check Box

- Handling the Text Box
- Checking the visibility of Text Box
- Checking the properties of Text Box
- Identifying common locator for all checkboxes
- Finding checkboxes count

Text Box

- Handling the Text Box
- Checking the visibility of Text Box
- Checking the properties of Text Box
- Identifying common locator for all TextBoxes
- Finding Textboxes count

Radio Button

- Handling the Radio Button
- Checking the visibility of Radio Button
- Checking the properties of Radio Button
- Identifying common locator for all Radiobuttons
- Finding radiobuttons count

WebElement

- What are WebElements in Selenium
- Different types of WebElements
- Operations performed on the WebElements
- How to locate the WebElements on the web page
- Different WebElement methods
- Difficulties while handling webElements

Dynamic Locators

- Absolute Path method
- Relative XPath method
- Identify by index
- Preceding-sibling, Following-sibling concept
- Ancestor ,parent concept
- Common tagname(*) method
- Multiple attributes to locate an element

Desired Capability

- Need for Desired Capabilities
- Different types of Desired Capabilities Methods
- Example for set capability method

- Setting the Property
- Getting the Property

Navigation Commands

- Navigate To Command
- Forward Command
- Back Command
- Refresh Command
- navigate method over get method
- Navigation by using JavascriptExecutor

WebDriver Commands

- Fetching a web page
- Locating elements and sending user inputs
- Clearing User inputs
- Fetching data over any web element
- Performing Click event
- Navigating backward in browser history
- Navigating forward in browser history
- Refresh/ Reload a web page
- Closing Windows
- Closing Browser
- Handling Windows
- Handling Frames
- Handling Drag and Drop

Actions

- Drag and Drop
- Mouseover Action
- Right Click
- Double Click
- Performing Multiple Actions
- Accessing modifier keys using Actions class

Alerts

- Switching into Alert
- Alert methods
- Types of Alert
- Handling the Alert
- Passing the inputs to Alerts
- Entering text into Alert
- Get the text present in Alert

Popups

- Handling the Window based popups
- Handling the Notification popups
- Handling pop-ups using Robot class
- Handling the Login popups
- Chrome Options
- FirefoxOptions
- InternetExplorerOptions

Robot Class

- Need of Robot Class
- Methods to implement this class
- Mouse click using Robot class
- Limitations
- Copy Operations
- Cut Operations
- Paste Operations
- File Uploading
- Alert Handling

Waits

- Need for Waits
- Static waits
- Dynamic waits
- Implicit Waits
- Explicit Waits
- Fluent Waits
- WebDriver Waits

JavaScript

- WebElement Highlighting
- Click Operation
- Fetching the Data from WebElement
- Sending the Inputs to WebElement
- Scrolling Operations
- Highlighting a WebElement

ScrollUp/ScrollDown

- Scroll the web page by pixel

- Scroll the web page by the visibility of the element
- Scroll down the web page at the bottom of the page
- Horizontal scroll on the web page
- Multiple Scroll
- ScrollBy coordinates

Frames

- Need for Frames
- Identifying a Frame
- Switching to Frames using Selenium WebDriver
- Different ways of switching
- Dynamic frames handling
- Frames Size
- Concept of Nested Frames

Windows Handling

- Importance of Windows Handling
- Handling the Multiple Windows
- Windows Handling using Set
- Windows Handling using List

WebTable

- Analyzing WebTable structure in DOM
- Handling multiple webtables in a page
- Dynamically changing WebTable handling
- Extracting values from webTable
- Analyzing the Tagnames
- Different Scenarios with WebTable

Dynamic WebTable

- Handling Dynamic Tables In Selenium
- Analyzing the Dynamic WebTable
- Analyzing the HTML Tags in Dynamic WebTable
- Different Scenario with Dynamic WebTable

ScreenShot

- Need of Screenshot in Automation testing
- Capture Screenshot in Selenium
- Capture Full Page Screenshot
- Taking a Screenshot of a particular element of the page

- Taking a Screenshot with different file formats
- Random name generation for screenshots

Image

- Finding images count in webpage
- Finding broken images count in webpage
- Finding broken image URL
- JavaScriptExecutor code to verify if image
- code to print desired output as per image

Links

- Identifying URL
- Validating URL
- To Find a broken links
- HTTP response code
- Collect all the links in the web page

DropDown

- Select class in Selenium WebDriver
- Different Select commands
- Multiple Select commands
- DeSelect Commands
- Get All options
- Dropdown without Select tag
- Handling dropdown with values changing its position dynamically.

File Upload/File Download

- Uploading files in Selenium WebDriver using Sendkeys
- Uploading files in Selenium WebDriver using Robot Class
- Uploading files in Selenium WebDriver using AutoIT
- Download files in Selenium WebDriver using Sendkeys
- Download files in Selenium WebDriver using Robot Class
- Download files in Selenium WebDriver using AutoIT

Auto IT

- download and install AutoIT
- Finding element through element Identifier
- Writing script on AutoIT editor
- AutoIT Upload file in Selenium Webdriver

Tooltip:

- Advanced User Interactions API

- Get Tooltip Text in Selenium Webdriver
- Tooltip using the "title" attribute
- Tooltip using a jQuery plugin

Browser Stack

- Introduction to Browser Stack
- Cross Browser Testing
- BrowserStack History
- Features of BrowserStack
- Testing The Web Application
- Browser Stack Key Functions
- Testing The Mobile Application In Mobile Browsers
- Testing Of Native,Hybrid Mobile Application In BrowserStack

Sauce Lab

- Saucelab-Introduction
- Value Proposition
- Manual testing on Sauce labs
- Post Execution
- Automated Test Execution
- saucelabs gem
- Execution and Results

POST SELENIUM

Maven

- Introduction to Apache Maven
- Maven Dependencies
- Maven Plugins
- Controlling The Build
- Maven Release Process
- Deploying to a Repository
- Using Snapshots

Git

- Introduction To Git
- Working Locally With Git
- Working Remotely With Git
- Branching, Merging And Rebasing With Git
- Using The GitHub Website
- GitHub For Windows Basics

- Teamwork With GitHub For Windows
- Social Coding With GitHub

Jenkins

- Continuous Integration or Continuous Deployment concepts
- Installing and Configuring Jenkins
- Freestyle Project Configuration
- Jenkins Pipelines
- Testing With Jenkins
- Pipeline Enhancements o Multi-branch Pipelines and Code Promotion

QTest

- Test plan:Releases and Builds
- Requirements
- Creating Testcases
- Creating and using parameters
- Using data query
- Executing test runs and submitting defects
- Complex scenario
- Setting up QTest explorer(web and desktop)
- using QTest Explorer(Web and Desktop)

ALM

- Introducing HP ALM
- Release Specifications
- Requirements Specifications module in HP ALM
- Test Plan Modules
- Defect Management Life Cycle
- Report & Analysis

Bamboo

- Getting started with Bamboo
- Understanding Bamboo
- Getting started with Java and Bamboo
- Getting started with .NET and Bamboo
- Configuring plans
- Deployment projects using Bamboo
- Evaluator
- Developer
- Getting support
- Automatic plan branches

- Quarantining intermittent tests
- Integrating Bamboo with Atlassian applications
- Bamboo remote agent installation guide
- Getting feedback
- Importing data from Jenkins
- Administering
- All administration topics
- Release notes
- Installing and upgrading

Ant

- Introduction to Ant
- Installing Ant
- Ant concepts and terminologies
- Working with Ant
- Integrating ANT into your IDE
- Ant in the Real-World
- Ant Tasks
- Automating your build and testing through Ant tasks
- Using Ant for automated deployment
- Integrating Ant with a version control system
- Creating Custom Ant tasks

BitBucket

- Introduction to Bitbucket
- Bitbucket Installation
- Navigation of Bitbucket
- Introduction to Git.
- Git installation
- Git commands.
- Git with Bitbucket
- Repository creation
- Repository permissions
- Branches
- Branches permission
- pull requests
- merging files
- Repository clone
- Git bash
- Source tree
- Installation of source tree
- User management

- Integration with jira

Gradle

- Gradle-plugins
- Working with files
- Ant Integration
- Dependency Management
- Extending the model
- Task inputs & outputs
- The Java plugin
- Multiproject builds
- The build runtime

JIRA

- Introduction To JIRA
- Test Management In JIRA (Zephyr)
- Advanced Search And Introduction To JQL (JIRA Query Language)
- Generating Reports In JIRA
- Introduction To JIRA Agile

Data Driven:

- Data Driven Explanation
- Excel Types
- Apache poi-ooxml
- Interface , class , methods in apache poi-ooxml
- Read Data from excel
- Write data in excel
- update data in excel
- Creation of Automation scripts reading data from excel

POM Framework:

- Page Object Model
- Advantages of POM
- Implementing POM
- Object repository creation
- Page Factory
- POM Annotation
- Getters and setters
- AjaxElementLocalFactory

JUNIT Framework:

- JUNIT Test Framework
- download and installation of junit
- JUNIT Annotation & API
- JUNIT Assert
- Create JUNIT Test Suite
- JUNIT Ignore Test
- JUNIT ErrorCollector
- JUNIT Parameterized Test
- JUNIT Vs Testng
- Execution metrics from JUNIT

TESTNG Framework:

- TESTNG with Selenium
- Advantages of TESTNG over JUnit
- TESTNG Annotation & API
- Create TESTNG Suite
- TESTNG Parameterized Test
 - Parameters
 - Data Provider
- Re-running failed Test Case
 - IretryAnalyzer
 - IAnnotationTransformer
- TESTNG Assert
 - Hard Assert
 - Soft Assert
- Run Multiple test case
- Customized,PDF,&Email Testng reports in selenium webDriver
- TESTNG Ignore Test

Cucumber FrameWork:

- BDD Introduction
- Cucumber Introduction
- How to download & Installation plugin
- Gherkin Language
- Feature files
- TestRunner with junit
- Step Definition
- Scenario and Scenario Outline
- BackGround and Hooks
- BaseClass and POM Integeration

- CucumberOptions
- Reports
- Rerun failed scenarios

JBehave Framework:

- JBehave Introduction
- How to download & Installation plugin
- Keywords in JBehave
- Stories
- Annotations
- Runner class
- List ,story , Node implementation
- Reports generation

Keyword-driven framework

- Introduction to keyword-driven framework
- Function Library.
- Excel Sheet To Store Keywords.
- Design Test Case Template.
- Object Repository for Locators.
- Test Scripts or Driver Script.
- Retrieving data using keywords

Hybrid framework

- Components of Hybrid Driven Framework
- Function Library
- Excel Sheet to store Keywords
- Design Test Case Template
- Object Repository for Elements/Locators
- Test Scripts or Driver Script

Travel domain

- Domain explanation
- Keywords explanation in travel domain
- Different Modules explanation in travel domain
- Booking Flow explanation
- Different interfaces integration explanation
- Test scenarios preparation
- Testcase preparation

- Defect raising using JIRA
- Automating e-travel site using framework

e-commerce domain

- Domain explanation
- Keywords explanation in e-commerce domain
- End to end flow explanation in e-commerce domain
- Different interfaces integration explanation
- Test scenarios preparation
- Testcase preparation
- Defect raising using JIRA
- Automating e-commerce site using framework

Other Domains Covered

- Banking Domain
- Retail Domain
- Insurance Domain
- Healthcare Domain
- Educational Domain

Manual testing

- Software build process
- SDLC
- STLC
- Introduction to Testing
- Manual and Automation Testing
- Testing Techniques
- Testing principles
- Test scenario and Testcases preparation
- Software testing methodologies
- Functional and non-functional testing
- Detailed explanation for Waterfall methodology
- Detailed explanation for Agile Methodology
- Defect raising using JIRA

Agile methodologies

- Agile Methodologies Overview
- Agile Scrum
- Agile ceremonies
- Agile artifacts

- Kanban
- Adaptive Project Framework (APF)
- Extreme Project Management (XPM)

Appium testing

- Mobile Testing - Overview
- Mobile Testing - Platforms
- Mobile Testing - Device Types
- Native Vs Hybrid Vs Mobileweb
- Appium Architecture
- Prerequisite to use APPIUM
- Install Appium Desktop
- APPIUM Inspector
- Attach Android Emulator to Appium
- ADB commands
- APPIUM Test Case for Native Android App
- Limitations using APPIUM
- Common Encountered Errors In Appium
- Troubleshooting Steps in Appium
- Hardware Perspective
- Mobile Device Testing - Types
- Mobile Testing - Framework Overview
- Mobile Testing - Android Frameworks
- Mobile Testing - IOS Frameworks

API testing

- Set-up of API Test environment
- Types of Output of an API
- Test Cases for API Testing
- Approach of API Testing
- Difference between API testing and Unit testing
- What to test for in API testing
- Best Practices of API Testing
- Types of Bugs that API Testing detects
- Tools for API Testing
- Challenges of API Testing

SOAPUI

- Introduction to SOAP UI
- Functional API testing
- Supported Protocols/Technologies

- SOAP-INTEGRATION with Other Automation Tools
- SOAP UI Vs Selenium:
- SOAP UI Vs SOAP UI PRO
- SOAP UI PRO Version
- SOAP UI – Version Timelines

Postman

- Postman Introduction
- Working with GET Requests
- Working with POST Requests
- Parameterize Requests
- Create Postman Tests
- Create Collections
- Run Collections using Collection Runner
- Run Collections using Newman

Understanding Real-time scenarios and work culture

- Project explanation
- Challenges faced by tester
- Roles and responsibilities of a tester
- Day to day activities of a tester

Resume preparation

- Your resume is arguably the most critical part of the modern job application process.
- A well-organized, tailored resume will increase your chances of landing an interview while a poorly written resume could get lost in the sea of applicants.
- We will help you to prepare your impressive resume with best specification of your skill set

Mock-Interview

- Mock interviews by Greens technologies gives you the platform to prepare, practice and experience the real-life job interview.
- Familiarizing yourself with the interview environment beforehand in a relaxed and stress-free environment gives you an edge over your peers.
- Our mock interviews will be conducted by industry experts with an average experience of 5+ years. So you're sure to improve your chances of getting hired!

Real-Time project

- To put your knowledge on into action, you will be required to work on two industry-based projects that discuss significant real-time use cases.
- These projects are completely in-line with the modules mentioned in the curriculum and help you to clear the certification exam.