FITZWILLIAM INSTITUTE GROUP

PROVIDING ACCREDITED PRACTICAL SKILLS TRAINING

ESTABLISHED OVER 25 YEARS

Diploma in Java Programming (Java Standard Edition) with Sun Certified Java Exam Preparation Module (Dip. Java Prog. SE) by Distance Learning

Please find enclosed the details you requested reference the above course. We have also provided Frequently Asked Questions which can be found at the end of this document.

- The Fitzwilliam Institute Group is part of an established group of companies training over **3,000** people each year benefiting from over **25 years experience** in the training arena.

- The Diploma in Java Programming (Java Standard Edition) by Distance Learning is an **interactive** and **case study** based programme written by **industry professionals**.

- The full course is delivered to participants within 24 hours of enrolment **Online** and in a **Hard Copy** and **CD Rom** format within 15 working days.

- The course is made up of **a number of modules** with **practical exercises** at the end of selected modules. There is a final course project made up of 5 parts worth 20% each to be handed in to the subject expert.

- Full support is available from our **Subject Experts** by email at the end of each module and on an ongoing basis during the course.

- You will have full access to an **online account** and subject expert advice for one full calendar year.

- The Diploma is accredited by the **Institute of Commercial Management**. ICM is an independent organisation offering certification worldwide.

- Please contact us by phone or email for further information regarding current enrolment dates.

The fee for the course is £995. Fees may be paid by cheque, bank draft, credit card, debit card, bank transfer or online at **payments page** through PayPal which is a safe, fast and secure method of payment.

If you wish to enrol on this course please visit our website **www.FitzwilliamInstituteGroup.co.uk** alternatively you can telephone us on **(020) 7812 0708 or (020) 7193 3962** or email **info@FitzwilliamInstituteGroup.co.uk** with any additional queries you may have.

Yours sincerely,



Noel Murphy
Director

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ESTABLISHED OVER 25 YEARS

BROCHURE

Diploma in Java Programming (Java Standard Edition) with Sun Certified Java Exam Preparation Module (Dip. Java Prog. SE) by Distance Learning

INTRODUCTION

This course teaches people with little or no programming experience how to program with Java, the worlds most popular programming language. Java has become the platform of choice for creating many different types of desktop, web applications and games software. There are now billions of Java enabled computers, mobile phones and other devices worldwide.

This course helps novices become literate in Java programming and experienced programmers become skilled Java developers. Skilled Java programmers are in demand worldwide for exciting well paid jobs. The Diploma in Java Programming provides the complete preparation for both the Sun Certified Java Associate Exam and the Sun Certified Java Programmer Exam.

The course also introduces UML (Unified Modelling Language) which is used to design software before it is created. This is particularly important for candidates for the Sun Certified Java Associate Exam but is of benefit to all Java programmers.

COURSE CONTENT

Overview of Java Applications
Creating Your First Java program, Compiling and running a Java Applications, Modifying a Java Program, Displaying Text with printf, Using Variables and simple arithmetic, Getting user input with class Scanner, Decision Making: Equality and Relational Operators.

Using Classes and Objects
Classes, Objects, Methods and Instance Variables, Declaring a Class with a Method and Instantiating an Object of a Class, Declaring a Method with a Parameter, Instance Variables, set Methods and get Methods, Primitive Types vs. Reference Types, Initializing Objects with Constructors, Floating-Point Numbers and Type double.

Control Statements
if Single-Selection Statement, if … else Double-Selection Statement, while Repetition Statement, Formulating Algorithms, Repetition Statements, Formulating Algorithms: Nested Control Statements, Compound Assignment Operators, Increment and Decrement Operators, Primitive Types, Essentials of Counter-Controlled Repetition, for Repetition Statement, Examples Using the for Statement, do … while Repetition Statement, switch Multiple-Selection Statement, break and continue Statements, Logical Operators.

Methods: A Deeper Look
static Methods, static Fields and Class Math, Declaring Methods with Multiple Parameters, Notes on Declaring and Using Methods, Method-Call Stack and Activation Records, Argument Promotion and Casting, Java API Packages, Generalized Scaling and Shifting of Random Numbers, Scope of Declarations, Method Overloading.

Arrays
Declaring and Creating Arrays, Examples Using Arrays, Enhanced for Statement, Passing Arrays to Methods, Multidimensional Arrays.

Classes and Objects Advanced
Controlling Access to Members, Referring to the Current Object's Members with the this Reference, Overloaded Constructors, Default and No-Argument Constructors, Composition, Enumerations, Garbage Collection and Method finalize, static Class Members, static Import, final Instance Variables, Time Class Case Study: Creating Packages.

Inheritance
Superclasses and Subclasses, protected Members, Relationship between Superclasses and Subclasses, Creating Class withInheritance, Creating a Inheritance Hierarchy, Inheritance Hierarchy Using protected Instance Variables, Inheritance Hierarchy Using private Instance Variables, Constructors in Subclasses, Software Engineering with Inheritance.

Polymorphism
Polymorphism Examples, Demonstrating Polymorphic Behavior, Abstract Classes and Methods, Payroll System Using Polymorphism, Demonstrating Polymorphic Processing, Operator instanceof and Downcasting, Summary of the Allowed Assignments Between Superclass and Subclass Variables, final Methods and Classes, Creating and Using Interfaces, Developing a Payable Hierarchy, Declaring Constants with Interfaces, Common Interfaces of the Java API.

Graphical User Interface Components
Simple GUI-Based Input/Output with JOptionPane, Overview of Swing Components, Displaying Text and Images in a Window, Text Fields and an Introduction to Event Handling with Nested Classes, Common GUI Event Types and Listener Interfaces, How Event Handling Works, JButton component , Buttons That Maintain State, JCheckBox component , JRadioButton component, JComboBox and Using an Anonymous Inner Class for Event Handling, JList component, Mouse Event Handling and Adapter Classes, JPanel Subclass for Drawing with the Mouse, Layout Managers.

Exception Handling
Exception-Handling Overview, Example: Divide by Zero without Exception Handling Examples, Java Exception Hierarchy, finally Block, Stack Unwinding, printStackTrace, getStackTrace and getMessage, Chained Exceptions, Declaring New Exception Types, Assertions.

Files and Streams
Data Hierarchy, Files and Streams, Class File, Sequential-Access Text Files, Creating a Sequential-Access Text File, Reading Data from a Sequential-Access Text File, Updating Sequential-Access Files, Object Serialization, Creating a Sequential-Access File Using Object Serialization, Reading and Deserializing Data from a Sequential-Access File, Additional java.io Classes, Opening Files with JFileChooser.

METHODS OF TRAINING
Online Lecture Modules, Subject Expert Feedback Sessions after each Module, practical case studies, end of module assignments. etc.

SUBJECT EXPERTS
Full support is available from our subject experts by email at the end of each module and an ongoing basis during the course.

WHO SHOULD APPLY
Anyone who wishes to develop a career in Java Programming. Selection is based on consultation. Please contact us at **(020) 7812 0708 or (020) 7193 3962** to arrange.

POSSIBLE CAREERS
Computer Programmer, Software Developer, Java Developer, Software engineer, Software Test, Software Design, IT consultant, Software Trainer.

QUALIFICATIONS
Successful candidates are awarded the Diploma in Java Programming (Dip. Java Prog.) at Pass, Credit or Distinction level. The Diploma is awarded by the Institute of Commercial Manage

APPLICATION PROCESS
Selection is based on telephone consultation. Please contact us at **(020) 7812 0708 or (020) 7193 3962** or email **info@FitzwilliamInstituteGroup.co.uk** to arrange a Consultation today!

DISCLAIMER

Every effort is made to ensure accuracy; however responsibility is disclaimed for any error or omission in this brochure.

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FREQUENTLY ASKED QUESTIONS

Course Specifics

How long does the course take to complete?
Course participants will have full access to the online course and subject expert advice for one full calendar year.

What is the course fee?
£995

When does the course start?
Please contact us by phone or email for further information regarding current enrolment dates. The full course content is delivered to participants within 24 hours upon enrolment in an online format and within 15 working days in hard copy and CD Rom formats.

Is this a fully comprehensive and fully inclusive course?
Yes. This course helps novices become literate in Java programming and experienced programmers become skilled Java developers. Skilled Java programmers are in demand worldwide for exciting well paid jobs. The Diploma in Java Programming provides the complete preparation for both the Sun Certified Java Associate Exam and the Sun Certified Java Programmer Exam.

Will this course help me get into the industry and build a network of contacts?
Yes. As the course is accredited by the industry and all our subject experts are themselves industry professionals, this provides you with direct access and resources within the industry.

Will I have contact with industry professionals from specialised areas?
Yes. Full support is available from our subject experts by email at the end of each module and an ongoing basis during the course. All subject experts are themselves Industry Professionals with many years experience.

Am I required to purchase any materials or books for this course?
No. The course includes comprehensive notes, a course CD Rom as well as on-line assistance from our subject experts. A folder of the entire course content is also sent to you in hard copy to your postal address. The course is designed to be as convenient and flexible as possible.

Assessment Process

How are we assessed?
Through practical assignments and a final course project

Are there exams?
No. The course is centred around the practical Java Programming Project which is explained below.

Course Structure and Outline:
On commencing the course, you are provided with a username and password with which you sign in. There is a user guide at the very beginning explaining how to use and work your way through the course.

The Java Programming Real World project is an important part of the course. Each course participant is given the project brief which is based on a Java Project utilised in the workplace.

Participants are asked at the end of the course to submit a Java Programming Proposal with their recommendations to the examiners.

This gives participants the opportunity to use the knowledge they have obtained during the course in a focused way and develops Real world Java Programming Project Skills

On completion of each project part, you must submit it electronically to the subject expert. There is a link provided in the site to all subject experts who will respond within 48 hours to any general query. Once they have corrected the project they provide you with relevant feedback as to how to improve and let you know you're on the right track etc.

You are then provided with Final Project Submission Guidelines at the end of the final module.

Application Process

How do I apply for a course / what is the application process?
There is no application form. The course can be booked and paid for online through our website at our **payments page**. If you have any additional queries after reading this brochure we simply ask you to contact us on **(020) 7812 0708 or (020) 7193 3962** or e-mail us at **info@FitzwilliamInstituteGroup.co.uk** and ask to be booked in for a consultation; we will then arrange a time convenient for you.

Do I need any previous experience or qualifications to join this course?
We do not request any previous experience or qualifications.

When is the deadline to apply for a course?
Please contact us by phone or email for further information regarding current enrolment dates.

Course Accreditation

Is this course accredited?
Yes. This course is accredited by the Institute of Commercial Management (ICM).

Is it internationally recognised?
Yes. It is both industry accredited and recognised internationally in over 130 countries.

How are the diplomas awarded in terms of grades?
Successful candidates qualify for the Diploma in Java Programming (Dip. Java Prog.). The Diploma is awarded at Distinction, Credit or Pass level.

Method of Training

Method of Training/ How do we differ from others?
The type of training we specialise in is one of Practical Skills. Online Lecture Modules, Subject Expert Feedback Sessions after each Module, practical case studies, end of module assignments.

Who delivers the training/ classes?
The Fitzwilliam Institute Group maintains a panel of qualified and motivated industry professionals, who work as a team of subject experts monitoring each student's progress.

Who is the course aimed at/ will it suit my needs?
The aim of this course is to provide learners with skills, knowledge and competencies to be able to write and design sophisticated professional programs using JAVA. Students will learn the syntax and structure of the Java programming language and will be able to create Java technology applications that run on server and desktop systems using Java Standard Edition 6 (Java SE 6). It also covers all of the objectives for the Sun Certified Java Associate Exam and the Sun Certified Java Programmer Exam. It provides the experience necessary to complete the developer assignments for the Sun Certified Developer for the Java Platform, Standard Edition.

How quickly can I obtain my Diploma?
On successful completion of this course, a Diploma will be issued by the Institute of Commecial Management and sent out to you within a number of weeks.

Why would you recommend me to do this course above any other?

The Fitzwilliam Institute Group is an established group of companies training over **3,000** people each year benefiting from over 25 years experience in the training arena.

The approach we use is one of practical skills based training, delivered by people from the industry for the industry. Our courses are recognised internationally and accredited by the industry. The comprehensive course you are embarking upon was written by industry professionals; the subject experts also have a wealth of industry experience. The Institutional recognition of the course is a major factor also.

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