DIPLOMA IN JAVA PROGRAMMING (2 Evenings a week, 12 weeks)

Please find enclosed the details you requested reference the above course. The next course starts on the 16th of September 2024. We have also provided FAQs which can be found at the end of this document.

- Fitzwilliam Institute is an established group of companies, benefiting from over 30 years' experience in the training area.

- The Diploma in Java Programming is the only practical course of its type in Ireland. The course will run for 12 weeks, 2 evening per week in Dublin City Centre on Monday and Wednesday evenings, from 6.30 pm to 9.00 pm.

- The Diploma in Java Programming is a practical skills training course delivered by some of Ireland's top industry professionals. This hands-on approach is part of our training ethos.

- Fitzwilliam Institute's Diploma in Java Programming offers practical and specific java programming skills that can be applied in real world situations. You will complete a real-life java application brief, which will help you gain invaluable java programming experience and develop your work portfolio. All course materials are included in the course fee. You will receive membership details for the course notes area of our website prior to the course start date.

- Fitzwilliam Institute maintains a panel of qualified and motivated trainers with practical experience from the industry who work as a team mentoring each student.

- The Diploma in Java Programming is certified and awarded by the Institute of Commercial Management (ICM) and is considered a professional qualification. ICM was founded in 1979 and is one of the leading professional examination and awarding bodies in the world today. Fitzwilliam Institute have developed and provided practical skills training Courses in liaison with the Institute of Commercial Management Qualifications framework for over 30 years. The Institute of Commercial Management certifications and continual professional development training awards are recognised by leading industries, bodies and professions.

- The full course fee is €1,495.00. To secure your place on the course a deposit of €296.00 is required. The remainder €1,199.00 is due 30 days prior to the commencement of the course. Fees may be paid by Visa Debit, Credit Card, Cheque, Bank Transfer or online **here.**

If you wish to enrol on this course please call us on +353 1 283 4579, fill out our short application form **here**, email **info@fitzwilliaminstitute.ie** with any additional queries you may have, or visit our website **www.fitzwilliaminstitute.ie.**

Yours sincerely,
The Fitzwilliam Institute Team

BROCHURE

DIPLOMA IN JAVA PROGRAMMING (2 Evenings a week, 12 weeks)

Introduction

Java Programming is the most popular programming language in the world, with 97% of organisations worldwide using it. As a result of its success, more than 16,000 Java positions are available on any given day. To respond to growing demand for Java programming developers, Fitzwilliam Institute's experienced course experts have developed a dynamic, interactive, practical workshop approach platform, to acquire java programming' best skills and practice. Fitzwilliam Institute's practical skills approach model provides you with hands-on practical programming experience, using the Java programming language.

Fitzwilliam Institute's Diploma in Java Programming course rapidly builds the knowledge base and confidence of new programmers. Benefiting from over 30 years' practical skills training experience, Fitzwilliam Institute's part-time evening Diploma in Java Programming is one of the longest running and most successful java programming courses in Ireland.

Delivered interactively by Ireland's leading Java Programming developers, Fitzwilliam Institute's Diploma in Java Programming course takes places in Dublin City Centre, two evening per week for 12 weeks, and features:

- **Over 3 months of intensive high-level Java Programming training with interactive modules covering:** Java Fundamentals, Classes and Objects, Inheritance, Polymorphism, Introduction to GUI Components, Exception Handling, Files and Streams, Collections, Networking, Accessing Databases with JDBC, Web Applications, etc.
- **Practical skills training delivery from leading industry professionals.** All of Fitzwilliam Institute's java programming trainers are top industry professionals with many years of successful java programming experience. Fitzwilliam Institute's cutting-edge program in Java Programming contains the core and vital java programming industry key skillset and, on completion, all of our students are industry-ready.
- **Real life java programming briefs.** Fitzwilliam Institute's Diploma in Java Programming offers practical and specific java programming skills that can be applied in real world situations. You will complete a real-life java programming brief, which will help you gain invaluable java programming experience and develop your work portfolio. A combination of interactive group sessions, presentations, and questions and answers allows you to gain transferrable skills and invaluable experience, in real-life situations, which will prepare you for a successful future in the industry.
- **Java programming jobs, networking and volunteer opportunities.** Benefiting from years of industry experience, we are extremely well placed within the tech field. Employers are always looking for Fitzwilliam Institute's java programming **students and alumni.** Our website features a comprehensive **jobs and volunteer opportunities section.**

COURSE CONTENT

Java Fundamentals
Introduction to java applications; Introduction to classes and objects; Java control statements and constructs; Arrays;

Classes and Objects
Controlling access to members; Overloaded constructors; Default and no-argument constructors; Composition; Enumerations; Garbage collection and method finalize; Static class members; Static import; Final instance variables; Creating packages;

Inheritance
Superclasses and subclasses; Protected members; Relationship between superclasses and subclasses; Creating and using a subclass using inheritance; Inheritance hierarchy; Using protected and private instance variables; Inheritance hierarchy using private instance variables; Constructors in subclasses;

Polymorphism
Polymorphism examples; Demonstrating polymorphic behaviour; Abstract classes and methods; Payroll system using polymorphism; Operator instance of and down casting; Final methods and classes; Creating and using interfaces; Declaring constants with interfaces; Common interfaces of the java API;

Introduction to GUI Components
Simple GUI-Based Input/Output with JOptionPanel; 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; List component; Mouse event handling and adapter classes; Panel subclass for drawing with the mouse; Layout managers; Using panels to manage more complex layouts;

Exception Handling
Exception-handling overview; When to use exception handling; 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;

Collections
Collections Overview; Class arrays; Interface collection and class collections; ArrayList class and iterators; LinkedList class; Collections algorithms; Algorithm sort; Algorithm shuffle; Algorithms reverse; Fill, copy, max and min; Algorithm binary search; Stack class of package Java.util; Class priority queue and interface queue; Sets; Maps;

Networking
Manipulating URLs; Reading a file on a web server; Establishing a simple server using stream sockets; Establishing a simple client using stream sockets; Client/server interaction with stream socket connections; Connectionless client/server interaction with datagrams; Using a multithreaded server;

Accessing Databases with JDBC
Relational databases; Relational database overview: the books database; SQL; Basic SELECT query; WHERE clause; ORDER BY clause; Merging data from multiple tables: INNER JOIN, INSERT, UPDATE, DELETE (DML) statement; Creating databases in MySQL; Manipulating databases with JDBC; Connecting to and querying a database; RowSet interface; Prepared statements; Executing stored procedures; Transaction processing;

Web Applications

Installing and configuring the Oracle Glassfish java system application server; Simple HTTP transactions; Multitier application architecture; Servlets; JavaServer Pages (JSP); JavaServer Faces (JSF); Creating and running a web application in Netbeans; Event-processing life cycle; Examining the XHTML generated by a Java Web Application; Building a web application in Netbeans; JSF components; Text and graphics components; Using validator components and custom validators; Session tracking and cookies;
Accessing databases in web applications; Building a web application that displays data from a database; Modifying the page bean file for the address book application; Autocomplete text field and virtual forms; Configuring virtual forms; JSP file with virtual forms and an autocomplete text field; Providing suggestions for an autocomplete text field; Using the Google Maps Map Viewer component in a web application;

Methods of Training

Lectures; discussions; role-plays; practical exercises; projects; case studies; etc.;

Trainers

Fitzwilliam Institute maintains a panel of qualified and motivated lecturers who work as a team monitoring each student's progress.

Qualifications

Successful candidates qualify for the Diploma in Java Programming. The Diploma is awarded at Distinction, Credit or Pass level. The Diploma is certified and awarded by the Institute of Commercial Management and is internationally recognised.

Disclaimer

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

FREQUENTLY ASKED QUESTIONS

DIPLOMA IN JAVA PROGRAMMING

Course Specifics

How long does the course run for?
The course runs 2 evenings a week, 12 weeks from 6.30pm - 9.00pm.

What is the course fee?
The full course fee is €1,495.00. To secure your place on the course a deposit of €296.00) is required. The remainder €1199.00 is due 30 days prior to the commencement of the course. Fees may be paid by Visa Debit, Credit Card, Cheque, Bank Transfer or online **here.**

Where is the course held?
The course is held in Dublin City Centre on Tuesday and Thursday evenings from 6.30 pm to 9.00 pm.

When does the course start?
16th of September 2024

How many hours outside of class will I need to study?
This depends on each individual. There is no 'homework' as such other than preparing a project presentation.

Is this a fully comprehensive and inclusive course?
Yes. This practical course is designed to enable participants to develop transferable skills Java Programming to enhance their value in other career areas. It offers practical and specific skills using lab-based modules that can be applied in real world situations.

Will this course help me get into the industry and build a network of contacts?
Yes. As one of Ireland's longest practical skills training providers, we are very well placed within the industry. We work closely with some of Ireland's leading tech companies and professionals from across the sector.

Am I required to purchase any materials or books for this course?
No. All course materials are included in the course fee. You will receive membership details for the course notes area of our website before the course start date.

Application Process

How do I apply for a course / what is the application process?
Selection is based on phone consultation. Early application is advisable as places are strictly limited. If you wish to be considered for this course, please fill out our short application form **here**, email us **at info@fitzwilliaminstitute.ie** or call us on **01 2834579** to arrange a phone consultation.

Do I need any previous experience or qualifications to join this course?
We do not request any previous experience or qualifications. In order to join, you are requested to complete a phone consultation to assess if the course is right for you.

What do the phone consultations entail?
The phone consultation is a chance for you to speak with a Fitzwilliam Institute representative, for them to run through the course structure and content with you and answer any questions you may have. The consultation should last between 10 to 15 minutes and no preparation is required.

Following a consultation, how long must I wait to find out whether I will be accepted on the course?
If you are successful, you will receive an offer letter from Fitzwilliam Institute shortly after your consultation, giving you instructions on how to proceed.

When is the deadline to apply for a course?
As our courses are filled on a first-come-first-serve basis, there is no deadline by which one must apply however as the courses fill up quickly, we do recommend applying as early as possible in order to secure your place on that course and to avoid disappointment.

Method of Training

How does your course differ from others?
The method we use is one of practical skills. A combination of case studies, interactive group sessions, presentations, and Questions and Answers, allows participants to gain invaluable experience, in real-life situations which will prepare them for their future in the industry.

Who delivers the training/ classes?
All of Fitzwilliam Institute's java programming trainers are top industry professionals with many years of successful experience.

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

Why would you recommend me to do this course above any other?
This comprehensive course you are embarking upon is the only one of its kind. Delivered by Ireland's top industry professionals, this course includes a combination of case studies, interactive group sessions, presentations, project briefs and questions and answers. You will gain invaluable experience in real-life situations, which will prepare you for a successful career in java programming.

Course Assessment & Certification

Is this course internationally recognised?

Yes. The Diploma in Java Programming is certified by the Institute of Commercial Management (ICM) and is considered a professional qualifcation. ICM was founded in 1979 and is one of the leading professional examination and awarding bodies in the world today. Fitzwilliam Institute have developed and provided practical skills training Courses in liaison with the Institute of Commercial Management Qualifications framework for over 30 years. The Institute of Commercial Management certifications and continual professional development training awards are recognised by leading industries, bodies and professions.

How are we assessed?

70% of your mark will be based on a practical, real life java application project. You will also be assessed through a short final written exam.

How are the diplomas awarded in terms of grades?

Successful candidates qualify for the Diploma in Java Programming. The Diploma is awarded at Distinction, Credit or Pass level.