



Certificate in Functional Programming

Vskills Certifications

Vskills Brochure



Certificate in Functional Programming

Functional Programming is a programming paradigm that treats computation as the evaluation of mathematical functions and avoids changing-state and mutable data. In functional code, the output value of a function depends only on the arguments that are passed to the function. The certification acts as a proof of your skills on professional social media like LinkedIn and for better job prospects.

Why should one take this certification?

This Course is intended for professionals and graduates wanting to excel in their chosen areas. It is also well suited for those who are already working and would like to take certification for further career progression.

Earning Vskills Certificate in Functional Programming Certification can help candidate differentiate in today's competitive job market, broaden their employment opportunities by displaying their advanced skills, and result in higher earning potential.

Who will benefit from taking this certification?

Job seekers looking to find employment in software development, or IT departments of various companies, students generally wanting to improve their skill set and make their CV stronger and existing employees looking for a better role can prove their employers the value of their skills through this certification.

Test Details

- **Duration:** 60 minutes
- **No. of questions:** 50
- **Maximum marks:** 50, Passing marks: 25 (50%)

There is no negative marking in this module.

Fee Structure

Rs. 3,499/- (Excludes taxes)*

*Fees may change without prior notice, please refer <http://www.vskills.in> for updated fees

Table of Contents

1. Why Functional Programming?

- 1.1 The Imperative Way and a Higher Level of Abstraction
- 1.2 Functional Programming and Boilerplate
- 1.3 Higher Order Functions
- 1.4 Recursion Aids Immutability
- 1.5 Copy-On-Write, Laziness, and Deferred Execution
- 1.6 Composing Functions

2. FP Building Blocks

- 2.1 The Big O Notation
- 2.2 Space/Time Trade-Off
- 2.3 Referential Transparency
- 2.4 Vectors Versus Lists
- 2.5 Complexities and Collections

3. Lists in FP

- 3.1 First Steps
- 3.2 List Head and Tail
- 3.3 Drop Elements
- 3.4 Concatenating Lists
- 3.5 Persistent Data Structures and Tail Call Optimization
- 3.6 List Append and Prepend
- 3.7 Getting the Value at Index
- 3.8 Modifying a List Value

4. FP and Binary Trees

- 4.1 Node Definitions
- 4.2 Building the Tree
- 4.3 Comparing Trees
- 4.4 The Accumulator Idiom
- 4.5 Binary Search Trees

5. FP List Algorithms

5.1 Binary Numbers

5.2 Greedy Algorithms and Backtracking

Certifications

- ▶ **Accounting, Banking & Finance**
 - Certified GST Professional
 - Certified AML-KYC Compliance Officer
 - Certified Business Accountant
 - Certified BASEL III Professional
 - Certified GAAP Accounting Standards Professional
 - Certified Treasury Markets Professional
- ▶ **Big Data**
 - Certified Hadoop and Mapreduce Professional
- ▶ **Cloud Computing**
 - Certified Cloud Computing Professional
- ▶ **Design**
 - Certified Interior Designer
- ▶ **Digital Media**
 - Certified Social Media Marketing Professional
 - Certified Inbound Marketing Professional
 - Certified Digital Marketing Professional
- ▶ **Foreign Trade**
 - Certified Export Import (Foreign Trade) Professional
- ▶ **Health, Nutrition and Well Being**
 - Certified Fitness Instructor
- ▶ **Hospitality**
 - Certified Restaurant Team Member (Hospitality)
- ▶ **Human Resources**
 - Certified HR Compensation Manager
 - Certified HR Staffing Manager
 - Certified Human Resources Manager
 - Certified Performance Appraisal Manager
- ▶ **Office Skills**
 - Certified Data Entry Operator
 - Certified Office Administrator
- ▶ **Project Management**
 - Certified Master in Project Management
 - Certified Scrum Specialist
- ▶ **Real Estate**
 - Certified Real Estate Consultant
- ▶ **Marketing**
 - Certified Marketing Manager
- ▶ **Quality**
 - Certified Six Sigma Green Belt Professional
 - Certified Six Sigma Black Belt Professional
 - Certified TQM Professional
- ▶ **Logistics & Supply Chain Management**
 - Certified International Logistics Professional
 - Certified Logistics & SCM Professional
 - Certified Supply Chain Management Professional
- ▶ **Legal**
 - Certified IPR & Legal Manager
 - Certified Labour Law Analyst
 - Certified Business Law Analyst
 - Certified Corporate Law Analyst
- ▶ **Information Technology**
 - Certified Angular JS Professional
 - Certified Basic Network Support Professional
 - Certified Business Intelligence Professional
 - Certified Core Java Developer
 - Certified E-commerce Professional
 - Certified IT Support Professional
 - Certified PHP Professional
 - Certified Selenium Professional
- ▶ **Mobile Application Development**
 - Certified Android Apps Developer
 - Certified iPhone Apps Developer
- ▶ **Security**
 - Certified Ethical Hacking and Security Professional
 - Certified Network Security Professional
- ▶ **Management**
 - Certified Corporate Governance Professional
 - Certified Corporate Social Responsibility Professional
 - Certified Leadership Skills Professional
- ▶ **Life Skills**
 - Certified Business Communication Specialist
 - Certified Public Relations Officer
- ▶ **Media**
 - Certified Advertising Manager
 - Certified Advertising Sales Professional
- ▶ **Sales, BPO**
 - Certified Sales Manager
 - Certified Telesales Executive

& many more job related certifications

Contact us at:
V-Skills
011-473 44 723 or info@vskills.in
www.vskills.in