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## Programming In Java



By Prof. Debasis Samanta | IIT Kharagpur

**Learners enrolled: 45444**

### Programming in Java



With the growth of Information and Communication Technology, there is a need to develop large and complex software. Further, those software should be platform independent, Internet enabled, easy to modify, secure, and robust. To meet this requirement object-oriented paradigm has been developed and based on this paradigm the Java programming language emerges as the best programming environment. Now, Java programming language is being used for mobile programming, Internet programming, and many other applications compatible to distributed systems. This course aims to cover the essential topics of Java programming so that the participants can improve their skills to cope with the current demand of IT industries and solve many problems in their own filed of studies.

**INTENDED AUDIENCE :** Undergraduate students from the engineering disciplines namely CSE, IT, EE, ECE, etc. might be interested for this course.  (<https://swayam.gov.in/>)  ([https://swayam.gov.in/nc\\_details/NPTEL](https://swayam.gov.in/nc_details/NPTEL))

**PREREQUISITES :** This course requires that the students are familiar with programming language such as C/C++ and data structures, algorithms. [About Swayam \(https://swayam.gov.in/about\)](https://swayam.gov.in/about) | [All Courses](#) | [0](#)

**INDUSTRY SUPPORT :** All IT companies.

## Summary

|                   |   |
|-------------------|---|
| Course Status :   | Completed   |
| Course Type :     | Elective  |
| Duration :        | 12 weeks  |
| Category :        | <ul style="list-style-type: none"> <li>Computer Science and Engineering</li> <li>Programming</li> </ul> |
| Credit Points :   | 3   |
| Level :           | Undergraduate   |
| Start Date :      | 24 Jan 2022   |
| End Date :        | 15 Apr 2022   |
| Enrollment Ends : | 07 Feb 2022   |
| Exam Date :       | 24 Apr 2022 IST   |

Note: This exam date is subjected to change based on seat availability. You can check final exam date on your hall ticket.

**This is an AICTE approved FDP course**

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## Course layout

**Week 1** : Overview of Object-Oriented Programming and Java

**Week 2** : Java Programming Elements

**Week 3** : Input-Output Handling in Java

**Week 4** : Encapsulation

**Week 5 :** Inherit

**Week 6 :** Except  (<https://swayam.gov.in/>)  ([https://swayam.gov.in/nc\\_details/NPTEL](https://swayam.gov.in/nc_details/NPTEL))

**Week 7 :** Multithreading and Programming

**Week 8 :** Java Applets and Servlets About Swayam (<https://swayam.gov.in/about>) | All Courses | ()

**Week 9 :** Java Swing and Abstract Windowing Toolkit (AWT)

**Week 10 :** Networking with Java

**Week 11 :** Java Object Database Connectivity (ODBC)

**Week 12 :** Interface and Packages for Software Development

## Books and references

1. Java: The Complete Reference Hebert Schildt, Mc Graw Hill
2. Object-Oriented Programming with C++ and Java Debasis Samanta, Prentice Hall India.

## Instructor bio



**Prof. Debasis Samanta**

IIT Kharagpur

**Debasis Samanta** holds a Ph.D. in Computer Science and Engineering from Indian Institute of Technology Kharagpur. His research interests and work experience spans the areas of Computational Intelligence, Data Analytics, Human Computer Interaction, Brain Computing and Biometric Systems. Dr. Samanta currently works as a faculty member at the Department of Computer Science & Engineering at IIT Kharagpur.

## Course certificate

The course is free to enroll and learn from. But if you want a certificate, you have to register and write the proctored exam conducted by us in person at any of the designated exam centres.

The exam is optional for a fee of Rs 1000/- (Rupees one thousand only).

Date and Time of Exams: **24 April 2022** Morning session 9am to 12 noon; Afternoon Session 2pm to 5pm.

Registration url: Announcements will be made when the registration form is open for registrations.

The online registration form has to be filled and the certification exam fee needs to be paid. More details will be made available when the exam registration form is published. If there are any changes, it will be mentioned then.

Please check the form for more details on the cities where the exams will be held, the conditions you agree to when you fill the form etc.

### CRITERIA TO GET A CERTIFICATE

This course will have a proctored programming exam also apart from the Proctored exam, please check announcement section for date (https://swayam.gov.in/) (https://swayam.gov.in/no-details/NPTEL)



Final score = Assignment score + Unproctored programming exam score + Proctored Exam score ( )

- Assignment score = 25% of average of best 8 assignments out of the total 12 assignments given in the course.
- ( All assignments in a particular week will be counted towards final scoring - quizzes and programming assignments).
- Unproctored programming exam score = 25% of the average scores obtained as part of Unproctored programming exam - out of 100
- Proctored Exam score = 50% of the proctored certification exam score out of 100

**YOU WILL BE ELIGIBLE FOR A CERTIFICATE ONLY IF ASSIGNMENT SCORE >=10/25 AND UNPROCTORED PROGRAMMING EXAM SCORE >=10/25 AND PROCTORED EXAM SCORE >= 20/50.**

If any one of the 3 criteria is not met, you will not be eligible for the certificate even if the Final score >= 40/100.

Certificate will have your name, photograph and the score in the final exam with the breakup. It will have the logos of NPTEL and IIT Kharagpur. It will be e-verifiable at nptel.ac.in/noc (http://nptel.ac.in/noc).

Only the e-certificate will be made available. Hard copies will not be dispatched.

Once again, thanks for your interest in our online courses and certification. Happy learning.

- NPTEL team



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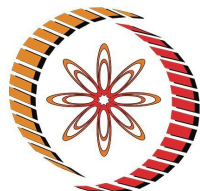
To  
VIJAY S  
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NORTH MASI STREET  
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PH. NO :9003882606



| Score | Type of Certificate    |
|-------|------------------------|
| >=90  | Elite+Gold             |
| 75-89 | Elite+Silver           |
| >=60  | Elite                  |
| 40-59 | Successfully Completed |
| <40   | No Certificate         |

No. of credits recommended by NPTEL:3

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



Elite

# NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

**VIJAY S**

for successfully completing the course

**Programming in Java**

with a consolidated score of **83** %

|                    |         |                  |       |                |          |
|--------------------|---------|------------------|-------|----------------|----------|
| Online Assignments | 24.5/25 | Programming Exam | 25/25 | Proctored Exam | 33.67/50 |
|--------------------|---------|------------------|-------|----------------|----------|

Total number of candidates certified in this course: **3157**



Prof. G P Raja Sekhar  
Dean, Continuing Education  
IIT Kharagpur

Sep-Dec 2020  
(12 week course)

Prof. Debjani Chakraborty  
Coordinator, NPTEL  
IIT Kharagpur



Indian Institute of Technology Kharagpur



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