**e-Learning Material to be uploaded on Virtual C4**

**Course/ Programme:** M.Sc. Computer Science

**Year & Semester:** Ist Year Sem-II

**Subject:** 2MCS1 - Java Programming

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| **Sr. No.** | **Topic** | **e-content Link \*** |
| **Programming in Java – NPTEL course by Prof. Debasis Samanta, Department of Computer Science and Engineering, IIT, Kharagpur** |
| 1 | Introduction to java, Java development tools, Java and WWW, Java applications | <https://www.youtube.com/watch?v=OjdT2l-EZJA&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=2> |
| 2 | Java Programming Steps | <https://www.youtube.com/watch?v=VksxhzfD8kQ&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=3> |
| 3 | Java Tools and resources | <https://www.youtube.com/watch?v=1B5ppTif5ZY&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=4> |
| 4 | Demonstration-I | <https://www.youtube.com/watch?v=2duE6dWb6dY&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=5> |
| 5 | Java Applets | <https://www.youtube.com/watch?v=0pzR2FGTEhk&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=6> |
| 6 | Demonstration-II | <https://www.youtube.com/watch?v=DLyCB2a4Tb4&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=7> |
| 7 | Encapsulation | <https://www.youtube.com/watch?v=K9gQwLeNXyw&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=8> |
| 8 | Demonstration-III | <https://www.youtube.com/watch?v=4wZ_3oLoYiY&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=9> |
| 9 | Java Programming insights | <https://www.youtube.com/watch?v=Ep1UB12YkzI&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=10> |
| 10 | Demonstration-IV | <https://www.youtube.com/watch?v=o_2f3rujJUo&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=11> |
| 11 | Java Static Scope Rule | <https://www.youtube.com/watch?v=VNvyB0wjE5Y&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=12> |
| 12 | Demonstration-V | <https://www.youtube.com/watch?v=eKckLidjtP8&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=13> |
| 13 | Inheritance | <https://www.youtube.com/watch?v=rxsl1TzcEgg&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=14> |
| 14 | Demonstration-VI | <https://www.youtube.com/watch?v=Xpw11pR41ps&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=15> |
| 15 | Data Abstraction/ Information hiding | <https://www.youtube.com/watch?v=t4GPGkLh4Vg&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=16> |
| 16 | Demonstration-VII | <https://www.youtube.com/watch?v=UarOS8o-_7Q&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=17> |
| 17 | Packages-I | <https://www.youtube.com/watch?v=TwU3cv1FFis&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=18> |
| 18 | Packages-II | <https://www.youtube.com/watch?v=cXtUhpZJYz8&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=19> |
| 19 | Demonstration-VIII | <https://www.youtube.com/watch?v=ujwFdWjw8uY&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=20> |
| 20 | Interface 1 | <https://www.youtube.com/watch?v=qgBv1_Plldo&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=21> |
| 21 | Interface 2 | <https://www.youtube.com/watch?v=nFH-Hm8iTR0&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=22> |
| 22 | Demonstration-IX | <https://www.youtube.com/watch?v=NfC_WDL5ugo&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=23> |
| 23 | Exception Handling-I | <https://www.youtube.com/watch?v=vUov8EkjZjU&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=24> |
| 24 | Exception Handling-II | <https://www.youtube.com/watch?v=QFbxzynUij4&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=25> |
| 25 | Exception Handling-III | <https://www.youtube.com/watch?v=W4Zve_x0o30&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=26> |
| 26 | Demonstration-X | <https://www.youtube.com/watch?v=DATCrVTsPcU&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=27> |
| 27 | Multithreading-I | <https://www.youtube.com/watch?v=6rYOyIGfy3w&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=28> |
| 28 | Multithreading-II | <https://www.youtube.com/watch?v=Kni0HMvq1Ig&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=29> |
| 29 | Demonstration-XI | <https://www.youtube.com/watch?v=gTUa53wRwA8&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=30> |
| 30 | I-O Stream – I | <https://www.youtube.com/watch?v=lYuj9nn0PBU&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=31> |
| 31 | I-O Stream – II | <https://www.youtube.com/watch?v=fnFQWtZZE-4&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=32> |
| 32 | I-O Stream – III | <https://www.youtube.com/watch?v=yaMB5waxHK4&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=33> |
| 33 | Demonstration-XII | <https://www.youtube.com/watch?v=nAmHYh-1_eI&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=34> |
| 34 | Applet Programming – I | <https://www.youtube.com/watch?v=cC_Ij7WmP_k&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=35> |
| 35 | Applet Programming – II | <https://www.youtube.com/watch?v=WA4FDPTZsQk&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=36> |
| 36 | Applet Programming – III | <https://www.youtube.com/watch?v=hDgPoi7PrzM&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=37> |
| 37 | Demonstration-XIII | <https://www.youtube.com/watch?v=8bpt6loanHM&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=38> |
| 38 | Demonstration-XIV | <https://www.youtube.com/watch?v=2LuqZ9t0ciE&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=39> |
| 39 | AWT Programming - I | <https://www.youtube.com/watch?v=Vtc-eipVgL0&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=40> |
| 40 | AWT Programming – II | <https://www.youtube.com/watch?v=QWg4D2Yvrak&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=41> |
| 41 | Demonstration-XV | <https://www.youtube.com/watch?v=uffpa4o7-9E&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=42> |
| 42 | AWT Programming – III | <https://www.youtube.com/watch?v=4La3ChRGCtY&list=PLbRMhDVUMngcx5xHChJ-f7ofxZI4JzuQR&index=43> |

\* e-content:

**References:**

1. NPTEL-Youtube Channel

**Name of the teacher:** A. B. Manwar

**Designation:** Associate Professor

**Department:** Computer Science