

### ### \*\*1. Introduction\*\*

We, at **Codexpert - Oscar IT Solutions**, are thrilled to present our **15-hour CodeXpert training program** designed to empower students with cutting-edge programming skills. This program has been developed with a focus on delivering high-quality, efficient, and practical coding knowledge, which aligns perfectly with the needs of IT Industry.

### ### \*\*2. Training Overview

Our **15-hour CodeXpert training** provides students with comprehensive exposure to programming concepts across multiple languages, including Python, Java, C++, JavaScript, and more. Through hands-on practice and real-world projects, students will master core coding skills while learning to switch seamlessly between different programming languages.

### #### \*\*Training Content

- 1. Introduction to the Universal Programming Concepts**
  - Understanding Basic Building Blocks and structure of a Program.
  - What's common across the Languages?
- 2. Core Programming Concepts**
  - Memory Statements.
  - Data types and Identifiers.
- 3. Multi-language Mastery**
  - Build Memory Statements in C, Python, Java, C++, C#, JavaScript.
  - Learning how to switch between languages efficiently.
- 4. Arithmetic & Logical Statements**
  - Nature of operators.
  - Operators based on Tasks.
  - How to measure the progress of learning to code?
- 5. Input & Output Statements**
  - Need for input and output statements.
  - Contents in the Output.
  - Multi Language Mastery
- 6. Sharpen the Coding Skills**
  - How to think like translator.
  - Time and Space Analysis.
- 7. Working with If & Switch | Case**
  - The Patterns in Selection Statements.
  - Examples of the Patterns
  - Multi Language Mastery.
- 8. Working with Iterations**

- Parts of an Iteration.
- Logic Building with Memory State Tables.

9. **Functions or Methods**

- Parts of a Function or Method.
- Execution of Function or Method.

10. **Quick Recap of all Statements**

- Essentials to take off.
- Giving a Fish vs Teaching how to Fish.

11. **Programming Principles**

- Structured Programming.
- Object Oriented Programming.

12. **Principles of Object Oriented Programming**

- Encapsulation
- Abstraction
- Multi Language Mastery.

13. **Working with Objects**

- Memory Management in an Object Life cycle.
- Working with Object services.

14. **Constructor & Initialisation**

- Dynamic memory Allocation and Recollection.
- Multi Language Mastery.

15. **Name Shadowing & Polymorphism**

- Naming the members of the Class as per usage.
- Existence of different Types of Member in Class
- Multi Language Mastery.

16. **Inheritance – The Next Version**

- Need of Inheritance.
- Types of Inheritance
- OOP Code Architecture
- Multi Language Mastery.

17. **Tier – II Mastering how to Code**

- Different Types of Memory Spaces.
- Why do we have multiple Programming Languages

18. **The True Treasure of Developer**

- Understanding the power of Languages and their Real – World Projects

## 19. **Tier – III Understanding the Architecture of Real – World Projects and their Evolution**

- Switching from the End User of the Project to a Developers Perspective.

## 20. Journey into the Future

- AI – Will it be the Master or Slave of Developer?

### **3. Material and Resources Provided**

- **Comprehensive Training Materials**: Digital workbooks, code examples, and reference guides covering all languages and topics taught in the course.
- **Video Lectures**: Access to a library of pre-recorded lectures for students to revisit any topic.
- **Practice Problems**: Over **200 coding exercises** and practice problems, graded with real-time feedback.
- **Access to the Codexpert Community**: Students and faculty will gain membership in the **Codexpert community**, where they can connect with industry professionals, mentors, and fellow students for ongoing learning and career opportunities.

Transforming qualification into high paid skills

### **4. Training Duration**

- The **15-hour training** is structured to be delivered over the course of **10 to 12 days** (75 mins to 90 mins per day). This intensive program is designed to provide maximum impact within a short period, ensuring students are equipped with key coding skills in record time.
- The Students shall practice the daily assignment provided. It generally takes 60 to 90 mins to complete the daywise Assignments
- If students don't put in daily effort, it becomes challenging to fully benefit from the course.

### **5. Additional Benefits Offered by Codexpert**

- **Bonus Training**: We provide an additional **100 hours of bonus training** covering advanced topics such as AI/ML basics, Data Structures, and Algorithmic problem-solving.
- **Live Project Experience**: Students will work on a **live project**, guided by industry experts.
- **Career Support**: We offer dedicated **placement assistance**, including mock interviews, resume-building workshops, and access to industry contacts.
- **Certification**: Every participant will receive a **CodeXpert Certification**, which is recognized by top tech companies.

### **6. Benefits for Students & University**

#### **For Students:**

- **Industry-Ready Skills**: Students will master programming skills that are highly valued by top tech companies such as Microsoft, Google, and Amazon.

- **Versatile Skillset**: Learning multiple programming languages empowers students to easily adapt to any software environment.
- **Placement Advantage**: With over **100 hours saved** in placement preparation, students are better equipped to tackle interviews and coding challenges.

#### #### **For the University:**

- **Enhanced Reputation**: By partnering with **Codexpert - Oscar IT Solutions**, the university can offer cutting-edge coding education to its students, setting it apart as a leader in technology education.
- **Increased Placement Success**: With well-prepared students, the university will see improved placement rates and relationships with top tech companies.
- **Faculty Development**: We offer special sessions to train faculty members on the latest programming trends, so they stay ahead in teaching methodologies.

#### ### **BONUS worth value INR 1,00,000/- Free**

##### **Bonus: Extended Technologies Learning Support**

In addition to our primary training module, we offer extensive support in various technologies, all worth ₹1,00,000/- and provided additionally for free:

1. **52 Hours of Journey to Salesforce with Placement Assistance**
2. **Mastering AI/ML**
3. **Prompt Engineering**
4. **LLM (Large Language Models)**
5. **Basic to Advanced Excel**
6. **Basic to Advanced PowerPoint Presentations**
7. **Basic to Advanced SQL**
8. **LinkedIn Portfolio Building**
9. **Corporate Communication**
10. **Mastering ChatGPT and Co-pilot**