



IDM TECHPARK
GUIDE'S FOR PERFECT CAREER PATHWAY



PL/SQL Course Syllabus



N.S.D.C
National
Skill Development
Corporation



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About Us

IDMTECHPARK global retail & corporate training solutions provider in Coimbatore, Erode, Trichy & Salem that offers a comprehensive range of training and placement services for both fresher's and professionals seeking new opportunities. The company commenced its IT training business in 2016. A pioneer in IT education, over the years, we have trained over 50k students. Idmtechpark has a wide range of courses, maintains education standards & provides placement assistance.

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About IDMTECHpark Education Quality

IDMTECHPARK is managed and developed by industry specialists with more than 8 years of expertise in the field. IDMTECHPARK offers a staff of highly skilled professional trainers who deliver effective IT training in a friendly setting, concentrating on the needs of each individual to help them succeed in a demanding work world. In the book of career and success, our staff never leaves a page unturned.

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IDMTECHPARK's versatile instructor-led training class rooms and lower-class sizes enable people to engage more easily and absorb knowledge, resulting in remarkable results for both themselves and the organizations for which they work. Our training programmes are adaptable and customizable to ensure that each participant gets the most out of their time with us. IDMTECHPARK focuses in providing hands-on IT training in over 30 different courses.

- We teach in-demand courses
- We provide impactful learning material
- Our teachers are well-selected & trained
- We follow world-class teaching methods
- Our courses include E-Projects
- We conduct technical workshops
- Exams are held and based on Exams providing Certification
- Certificates are recognized the world over
- Our course timings are flexible



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Our Recent Placement

Idmtechpark assists students in getting job placements on successful completion of their courses. Idmtechpark also provides recruitment assistance to organizations. Idmtechpark students are shortlisted based on the organization's requirement. To make students job-ready, Idmtechpark conducts workshops e.g. How to do Group Discussions, how to behave in a Personal Interview. From time to time, job fairs & campus recruitments are conducted. Workplace skills such as time management, making effective presentations and communication skills are also provided. All this helps students find appropriate jobs in the IT industry while also helping save companies recruitment costs.

Krishnaveni M

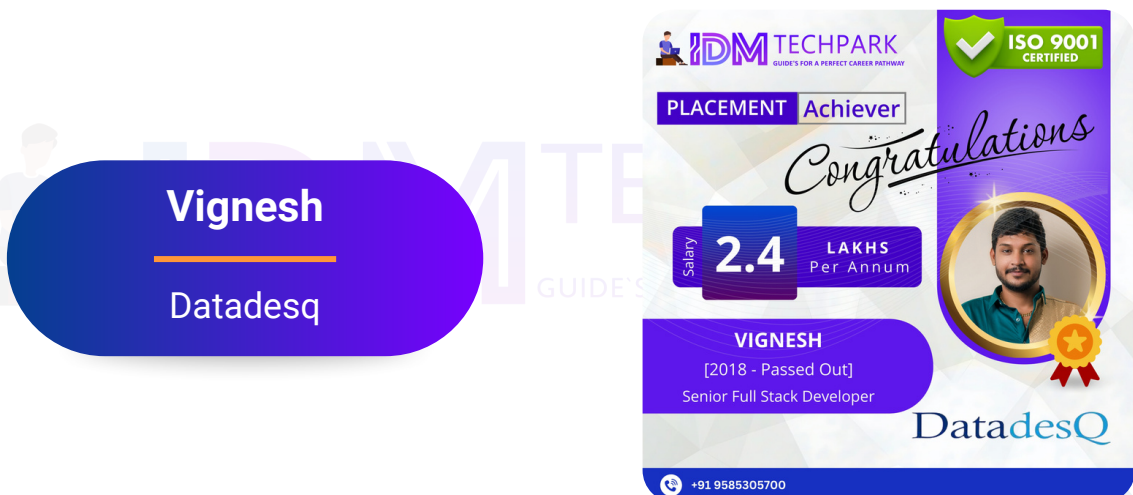
Frutterlabs





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Xccessor



Vignesh

Datadesq



Madhumitha

Accenture

Keerthana

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Brindha Boopathi

AJS



Kavın Kumar

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Surya

ZUCI

Pavithra

Vel Info Tech



Poovitha

Gray Matter



Ramesh

TDT

Siva Sankar
 ST Cloudspark tech



Nabeel Hisham
 VTail



Kalayarasan
 Violet Infotech

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Our Alumni Working At



MODULE 1

Introduction to PL/SQL

- What is PL/SQL?
- PL/SQL architecture
- Differences between SQL & PL/SQL
- PL/SQL Block structure

MODULE 2

PL/SQL Data Types & Variables

- Scalar and Composite types
- Anchored data types (%TYPE and %ROWTYPE)
- Variable scope and lifetime

MODULE 3

Control Structures

- IF-THEN-ELSE statements
- CASE expressions
- Loops (FOR, WHILE, SIMPLE)



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MODULE 4

Input and Output with DBMS_OUTPUT

- Enabling server output
- Printing messages
- Debugging with DBMS_OUTPUT

MODULE 5

Cursors in PL/SQL

- Implicit vs Explicit cursors
- Cursor attributes (%FOUND, %NOTFOUND)
- Cursor FOR loops



MODULE 6

Cursor Parameters

- Passing parameters to cursors
- Cursor examples with filtering



MODULE 7

Exception Handling

- Predefined exceptions
- User-defined exceptions
- WHEN OTHERS & best practices



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MODULE 8

Procedures

- Creating and executing stored procedures
- IN, OUT, IN OUT parameters
- Real-world example: Save employee record



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MODULE 9

Functions

- Creating functions
- Return types
- Function vs Procedure differences



MODULE 10

Packages (Specification and Body)

- Creating reusable PL/SQL packages
- Private vs public procedures
- Initialization section

MODULE 11

Triggers - Introduction

- Types: Row-level vs Statement-level
- BEFORE and AFTER triggers
- Enforcing business rules with triggers

MODULE 12

Advanced Triggers

- INSTEAD OF triggers
- Compound triggers
- Disabling and enabling triggers



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MODULE 13

Records & Collections

- RECORD types
- TABLE, VARRAY, and NESTED TABLE
- Using collections in loops



MODULE 14

Bulk Collect & FORALL

- Bulk processing for performance
- Avoiding loop-by-loop execution
- LIMIT clause

MODULE 15

Dynamic SQL

- Using EXECUTE IMMEDIATE
- Binding variables
- DDL in PL/SQL



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MODULE 16

Ref Cursors

- Strongly and weakly typed
- Returning query results
- Real-world reporting use cases



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MODULE 17

Working with PL/SQL Tables & Index-by Tables

- Declaring and initializing
- Searching and deleting elements

MODULE 18

Security & Privileges

- GRANT, REVOKE in PL/SQL
- Definer's Rights vs Invoker's Rights
- Secure coding practices



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MODULE 19

PL/SQL Performance Tuning

- Identifying slow code
- Use of bulk operations
- PL/SQL Profiler

MODULE 20

PL/SQL with SQL*Plus & TOAD/SQL Developer

- Tools overview
- Executing anonymous blocks
- Best IDE practices

MODULE 21

Debugging & Testing PL/SQL

- Using breakpoints in SQL Developer
- Logging with DBMS_OUTPUT, DBMS_TRACE



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MODULE 22

Error Logging & Auditing

- Custom logging tables
- Capturing errors with WHEN OTHERS
- Using DBMS_LOG package

MODULE 23

PL/SQL Integration with Frontend Apps

- Calling procedures from PHP/Java/.NET
- Web-based forms and triggers
- Binding variables from UI

MODULE 24

Mini Project – Employee Management System

- Implementing triggers, procedures, functions
- Data validation and logging
- Role-based data handling

MODULE 25

Capstone Project – End-to-End PL/SQL Application

- Real-world domain: HR, E-commerce, or Healthcare
- Full database schema
- Complete PL/SQL logic: Procedures, Functions, Packages, Triggers
- Performance and Security implementation

Thank You

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