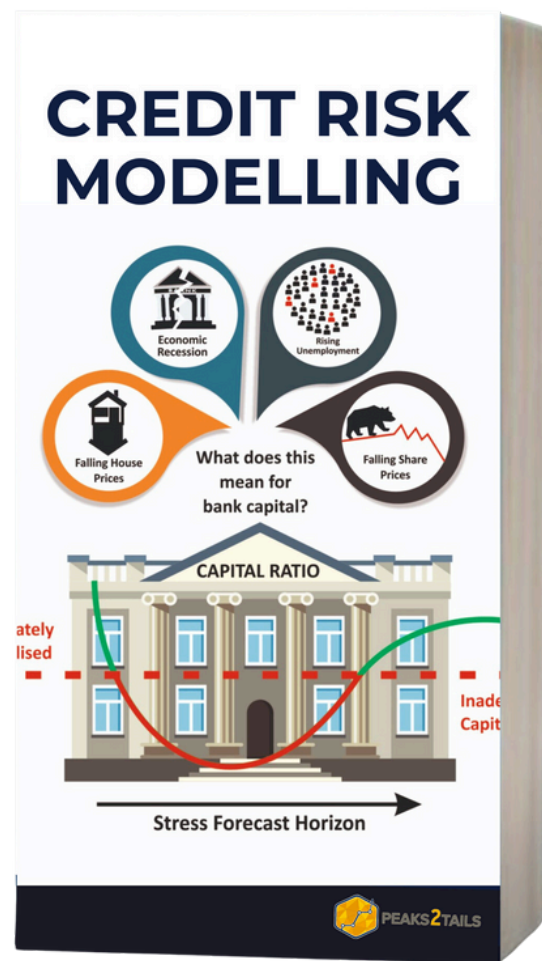


BOOTCAMP IN CREDIT RISK

EXCEL & PYTHON



REGULATORY MODELS

- 1 Basel Capital Charge
- 2 IFRS 9 Provisioning
- 3 Stress Testing

BUSINESS MODELS

- 4 Application Scorecards
- 5 Behavioral Scorecards
- 6 Early Warning Systems
- 7 Loan Pricing

PRODUCT COVERAGE

- 8 Retail Funded Portfolio
- 9 Retail Non-funded portfolio
- 10 Retail Secured Loans
- 11 Retail Unsecured loans
- 12 Wholesale Portfolios

LINES OF DEFENSE

- 13 Model Development
- 14 Model Validation
- 15 Model Audit

ABOUT THE COURSE

Enhance your risk management prowess with our comprehensive training program on Scorecards, Basel, IFRS 9, and Stress testing. Gain a holistic understanding of these essential tools that drive effective credit risk assessment and compliance. Unleash the predictive power of Scorecards, equipping yourself with the expertise to evaluate creditworthiness and make data-driven decisions. Master Basel & IFRS 9, the revolutionary regulatory framework, and revolutionize your financial reporting practices while enhancing transparency. Discover the resilience of your institution through stress testing, uncovering vulnerabilities and proactively mitigating risks. By integrating these components seamlessly, you'll forge a robust risk management framework, positioning yourself as a leader in the ever-changing financial landscape. Enroll today and unlock the transformative potential of Scorecards, Basel, IFRS 9, and Stress testing.



DETAILED CURRICULUM

Basic Understanding

- Understanding Loan Lifecycle
- Scorecards vs Basel vs IFRS9 vs CCAR models
- Excel hands - on - Data Preparation for Model development

Scorecards

- Application Scorecard vs Behavioural Scorecard
- Understanding Bad definition
- Excel hands-on - Roll Rate Analysis (to incorporate bad flag) on Fannie Mae Mortgage data
- Understanding concepts of Snapshot, Observation Period & Performance Period
- Excel hands-on - Seasoning analysis to identify Performance Window
- Thinking beyond Statistics - Policy rules, Overrides, Reject Inferencing
- Excel hands - on - Building Application Scorecards using Logistic Regression
- Excel hands - on - Building Behavioural Scorecards using Logistic Regression

Loss Modelling

- Excel hands - on - Modelling Losses through Vintage analysis
- Excel hands - on - Modelling Losses using Flow Rate Approach

Modelling Probability of Default

- Excel hands-on - Calculating PD using Logistic Regression
- Calculating PD using ML Techniques
- PD segmentation using Decision trees

Modelling Loss given Default

- Calculating workout LGD (Excel)
- Computing LGD using Decision Trees
- Tobit & Beta Regression for LGD Modelling (Excel)
- Fractional Logistic Regression for LGD Modelling (Excel)
- Incomplete workout approach (Excel)

Modelling Exposure at Default

- Modelling EAD using CCF (Excel)
- CCF calculation using Fixed & Variable Horizon, Cohort approach (Excel)
- CCF Regression (Excel)

Cure Modelling	<ul style="list-style-type: none"> • Instant Cure vs Probationary Cure (Model design) • Loss given Cure modelling
Basel Capital Charge	<ul style="list-style-type: none"> • RWA & Capital Adequacy Ratio calculations (Excel) • Using Vasicek formula to convert TTC PD to Worst Case PD • Calculating Capital as per Basel IRB Approach (Excel)
IFRS 9 Introduction	<ul style="list-style-type: none"> • TTC PD in Basel vs PIT PD in IFRS • 12 months PD calculation vs lifetime PD calculation • Understanding Concepts of Staging - Stage 1 Stage 2 Stage 3
IFRS 9 PD Calculation	<ul style="list-style-type: none"> • Understanding Conditional PD Vs Unconditional PD • Excel hands-on - Converting TTC PD to PIT PD using Z score • Excel hands-on - Converting TTC PD to PIT PD using Log Odds shift • Excel hands-on - Converting TTC PD to PIT PD using Scalar approach • Calibration & Smoothing techniques (Excel)

CECL techniques	<ul style="list-style-type: none"> • Discrete Time Hazard Models (Excel) • Snapshot/Open Pool Method • WARM Model (Excel) • Vintage analysis (Excel)
Actuarial Credit Risk Models	<ul style="list-style-type: none"> • Survival analysis (Excel) • Lee Carter Model (Excel) • Age Period Cohort Analysis (Excel)
APC Extensions	<ul style="list-style-type: none"> • Validating APC - Alternating Vintage Diagrams, Moran's D (Excel) • Bayesian APC (Excel) • Quantifying Adverse Selection by Vintage (Excel) • Adverse Selection through Fixed and Random effects (Excel)
IFRS 9 LGD & EAD Calculation	<ul style="list-style-type: none"> • PIT forward looking term structure of LGD as a function of Collateral value (Excel) • PIT forward looking term structure of LGD using Regression (Excel) • Calculating PIT LGD using Jacob Frye model (Excel) • CCF Term structure using Regression (Excel)

IFRS 9 Wholesale Models

- Understanding Transition Matrices
- Building Transition Matrix using Cohort Approach (Excel)
- Building Transition Matrix using Duration Approach (Excel)
- Converting TTC Transition Matrix to PIT Transition matrix (Excel)
- Validating Transition Matrices (Excel)

Low Default Portfolios

- Bayesian approach to handle LDP (Excel)
- Pluto Tasche Approach (Excel)
- Van Der Burgt Method (Excel)
- QMM Method (Excel)

Stress Testing

- Top Down vs Bottom Up stress Testing (Excel)
- ICAAP
- Understandings CCAR vs DFAST requirements
- PPNR Modelling
- Excel hands -on - Modelling ARIMA & ARIMAX
- Excel hands -on - Building CCAR & PPNR model using multiple regression & time series models
- Excel hands - on - Perform 9 quarter In Sample & Out of Sample Backtesting
- Backtesting & Benchmarking

Model Validation

- Evaluating Discriminatory Power Of Model (Excel)
- Evaluating Accuracy of Model and Calibration (Excel)
- Performing Stability analysis (Excel)
- Margin of Conservatism (Excel)
- Validating Wholesale Models (Excel)
- Validating Stress Testing Models (Excel)

Pricing Loans

- Optimizing Yields using Solver (Excel)
- RAROC based pricing (Excel)

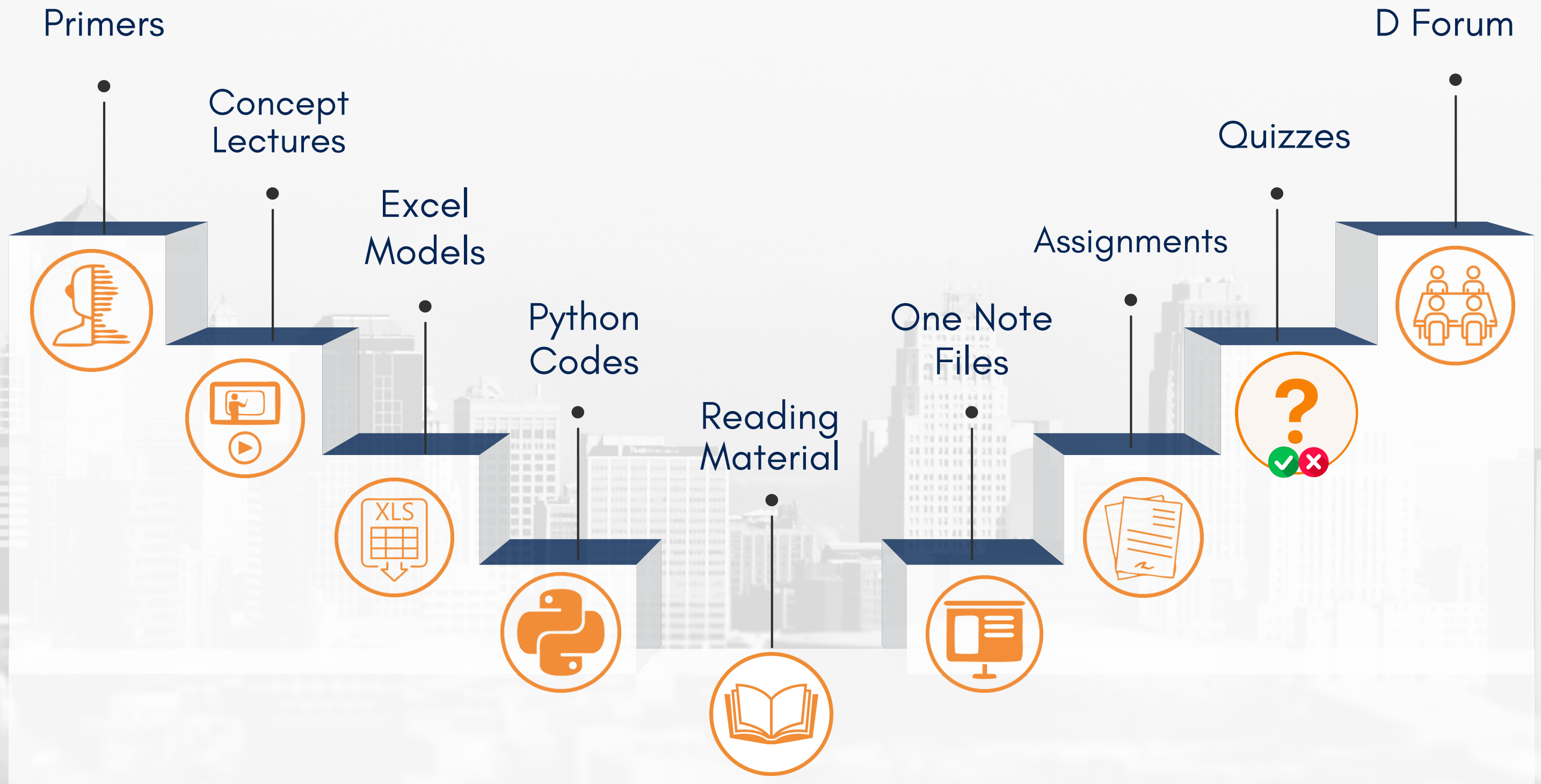
Corporate Credit Models

- Merton & KMV Models (Excel)
- Credit Plus Models (Excel)
- Credit Portfolio View (Excel)
- Credit Metrics Model (Excel)

IFRS 9 LGD & EAD Calculation

- Bayesian Regression Models (Excel)
- Kalman Regression Models (Excel)
- Generalized Additive Models (Excel)

DELIVERABLES



KNOW YOUR TRAINER



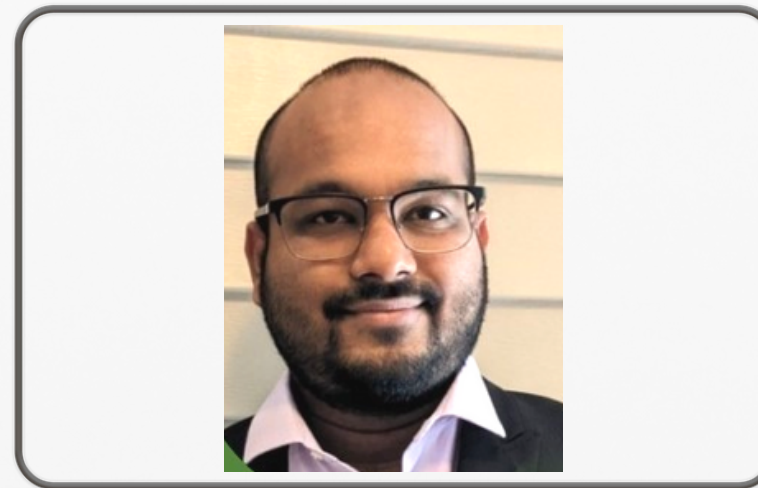
KARAN AGGARWAL

Karan Aggarwal is a qualified **FRM Charterholder, CFA Level 3 cleared and CQF**. He is one of India's leading trainers in Financial Modelling, Risk Modelling, Data Analytics and academic programs like Financial Risk Manager (FRM) & Actuarial Science.

He has spearheaded several solution accelerators and spreadsheet-based prototypes in Risk and Analytics space. Karan has also authored a number of papers on Basel Modelling, IFRS 9 Modelling, Stress Testing & Machine Learning.

He is widely regarded for his problem-solving, thought leadership and intrapreneurship skills. His analytical mindset, solid fundamentals & the thirst to keep learning set him apart as a true authority in this field. Karan has also been awarded the Young Indian Entrepreneur Award by the Confederation Of Indian Industries in the year 2017.

KNOW YOUR TRAINER



SATYAPRIYA OJHA

Satyapriya Ojha is a highly skilled Capital Markets and Risk professional with **12+ years of experience in Regulatory Capital, Valuation and Analytics.**

He is an IIT & IIM graduate and holds FRM charter (top quartile in all subjects of part I & part II) and a distinction from CQF institute. He is an expert in quantitative models used in valuation and risk management . He has worked as a consultant in several regulatory projects for some of the top banks in the US in BASEL III and FRTB space. Currently, he serves as a product owner for a top wealth management firm engaged in quantitative portfolio management for institutional clients.

OUR TRAINEES WORK IN



TESTIMONIALS

ADITYA BHAT

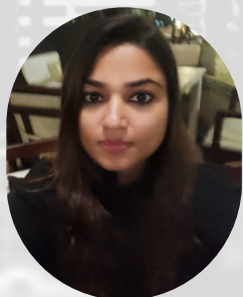
ADITYAABHAT@GMAIL.COM
8073854996



Hey everyone! I'm incredibly excited to share some fantastic news with all of you. I've just received an offer for a Model Monitoring role at Standard Chartered, and the salary package is almost a 100% hike from my current position at HSBC! The transformation I've undergone in the last 7 months since joining the CRM is truly remarkable. I'm now so much more confident in my knowledge and skills, all thanks to the Peaks2tails team and Karan Sir for simplifying the complexity in the field of modeling. Believe it or not, I feel like I cleared the interview based on the most basic concepts taught in the course. It's like I only needed to understand the first 1 or 2 classes of each module to land this incredible opportunity! • If any of you are curious about my interview experiences after being part of the P2T CRM community, please don't hesitate to reach out. I'd be more than happy to share my insights and help you all grow in your careers as well.

RENU KANSAL

RENU.KANSAL19@GMAIL.COM



Hi all, I would like to share that i have received offer from Tata Consultancy Services. They have offered Associate Consultant in Risk Analytics Unit. This has become possible only because of the course. They were only looking for an experienced person in this field. My experience wasn't matching but they commented that the knowledge you command is commendable. This is the power of this course! All of those who are hunting for job, please be patient.. good offer will definitely come to your way!!

GARIMA VIJAYVARGIA

GARIMAVJVARGIA@HOTMAIL.COM
9819667944



Hi all, I am glad to share that I have landed a job in one of the big four , the profile is model validation and want to thank Karan sir for this fantastic course. As my exposure was from the model user side and not the model developer side but still I was able to crack the technical part of the interview based on the understanding which I got from this course. At the end I am just getting a feeling that it's worth it, I wanted to take a moment to express my gratitude and share my positive interview experience with all of you. In interview they asked mostly abt IFRS 9, how to do staging, what is CCF, formula to convert TTC PD to PIT PD, icaap and stress testing and CRAR Also they asked abt python and sql wherein I am just a beginner but based on the course I got confidence that I will be able to catch up and I ensured the same to them. The knowledge and skills I gained during the course played a pivotal role in helping me secure this position. For those who are current preparing for interviews for similar kind of profiles. I want to encourage you to stay determined, put your best foot forward. All the very best.

ANKIT RAJ

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7807532220



Dear Friends it gives me an immense pleasure to share that I got an offer from Dun and Bradstreet as a Senior Data Scientist role in model validation and data governance team . To be honest the model validation round questions I was able to crack because of Karan sir model validation lectures and notes. I reached out to him and he said watch the video and notes. Hardly anything beyond was asked. My sincere gratitude to karan sir and his team for support and wonderful material.

CORPORATE SELF PACED LEARNING PACKAGES



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2-3 days each



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Licences
@ 48,000 each
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solving sessions and
mentoring on client
specific simulated
datasets

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Minimum 15
Participants at
25,000 each
(+ 18% GST)

Workshops spanning
across 2-5 days



Customized topics with
training tailored to
unique audiences



GLIMPSE OF OUR RECENT WORKSHOPS



NEO Bank, Jakarta



Union Bank of India, Mumbai



Trans-Union CIBIL



3 DAYS INTEGRATED CREDIT RISK WORKSHOP

DAY 1

1. Data preparation using Roll Rate and vintage analysis
2. Building credit scorecards using Logistic regression and taking accept reject decisions
3. Converting PD to scores using Point to double the odds
4. Model validation using discriminatory power and calibration accuracy
5. Understanding of RWA & Capital calculation under Internal Rating Based approach

DAY 2

6. Computation of PD using Vasicek formula
7. Computation of LGD using Chain Ladder method
8. Computation of Point in Time PD & PIT LGD for calculation of 1 yr & lifetime expected credit loss.

DAY 3

9. Computation of Stressed losses under ICAAP (Internal Capital Adequacy Assessment Program)
10. Loan pricing using RAROC concepts
11. Hands-on - All the learnings will be integrated through an extensive downloadable excel template.



Scorecards
BASEL
IFRS 9 ECL
Stress Testing
Loan Pricing

3 DAYS CREDIT LOSS MODELLING WORKSHOP

Draft
Curriculum

DAY 1

1. ECL excel walkthrough to understand the components of ECL mainly staging, PIT PD, PIT LGD, PIT EAD and EIR
2. Computing TTC PD under IRB approach
3. Building macroeconomic regression model to get point in time default rates
4. Calibrating PIT PD using scalar and log odds shift technique
5. PIT PD model using z score methodology - 2 states (default and non default) - Retail portfolio
6. PIT PD model using z score methodology - multiple states (Transition matrix approach) - Wholesale portfolios

DAY 2

7. TTC LGD using Chain ladder approach
8. PIT LGD model for unsecured loans using Jacob Frye
9. PIT LGD model for secured loans using collateral valuations
10. PIT EAD modelling for funded products and unfunded products (Prepayment and CCF Modelling)

DAY 3

11. Combining PIT, LGD & EAD to compute 1 year and lifetime ECL
12. Validating Basel, IFRS 9 & Stress Testing models
13. ECL impact assessment & handling challenges



SICR
PIT PD, LGD, EAD
Account Level vs Segment Level
models
Secured vs Unsecured Loans
Funded vs Unfunded Facilities
Macro economic regression model

**BOOTCAMP IN
CREDIT RISK GOLD**

**BOOTCAMP IN
CREDIT RISK PLATINUM**

Self paced learning **175 hrs** +
Advanced Modelling using **Python**
Weekend **live** and **doubt sessions**

Gold package + Advanced
Modelling using **Python** +
3 Masterclasses of **15 hrs** each









	GOLD	PLATINUM
1 year	Rs. 40,000	Rs. 50,000
Lifetime	Rs. 48,000	Rs. 60,000

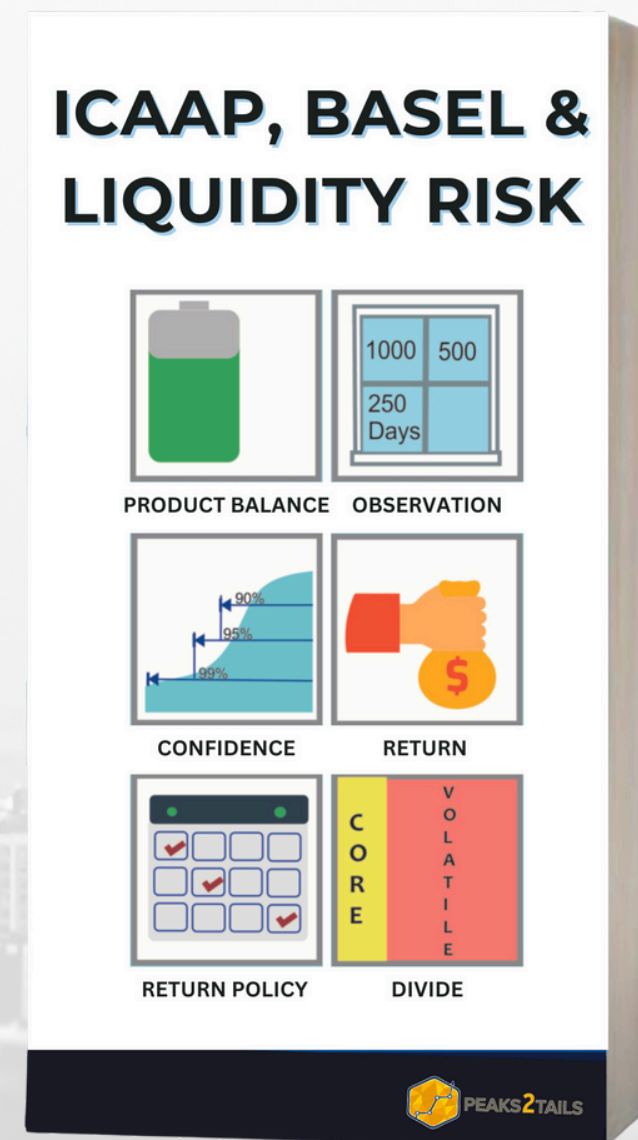
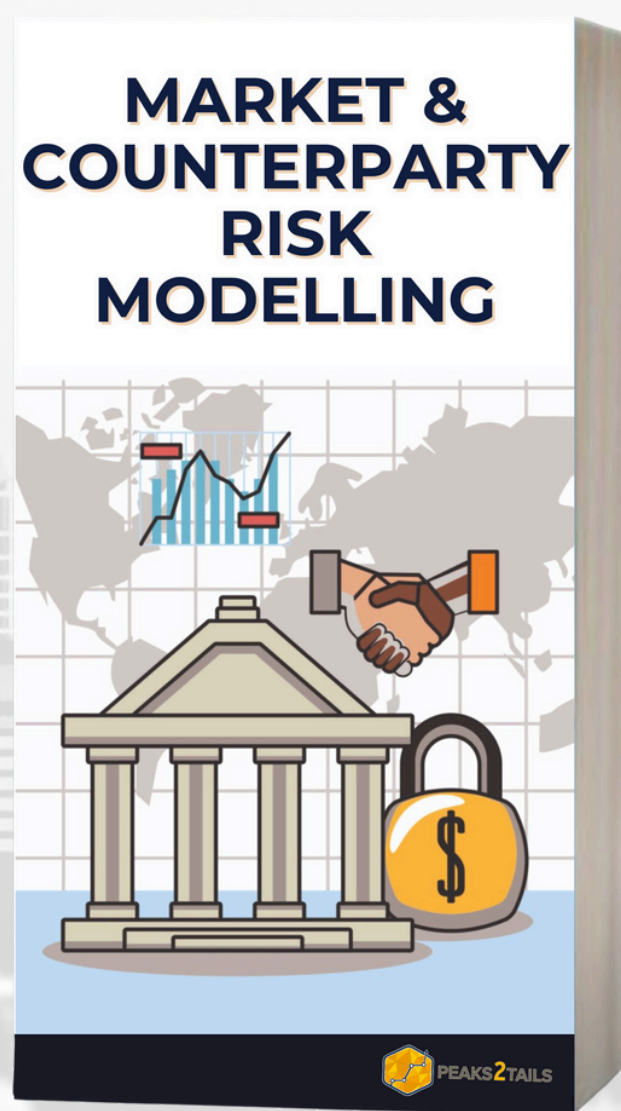


FREQUENTLY ASKED QUESTIONS

TENURE :	3/6/9/12 Months
CHARGES :	No interest, no processing fees & no hidden charges
APPLICABLE COURSES :	Courses valued above Rs.40000 & having lifetime access
REQUIREMENTS :	Applicant has to be a Salaried person
DOCUMENTS :	3 Months Salary Slips & Bank Statements
PROCESSING TIME :	4 - 6 Hours

PREQUISITE 	CERTIFICATE 
Basic knowledge of statistics and excel	On successful completion of assignments and exams
FEES 	DURATION 
40,000 For 1 Year Access 48,000 For Lifetime Access	150 Hours
MODE 	LANGUAGE 
Online	Hindi

OUR OTHER COURSES





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karan@peaks2tails.com

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