

# RADAR Analytics



## ***RADAR Analytics for Retail Bank's Loan Defaulters Prediction with ➤ RADAR Scoring Engine.***

***RADAR Scoring Engine*** is a retail credit scoring and decision solution that predicts the Loan customer behavioral and will provide the automated credit scores .

### Key Futures : -

- ❖ Credit Risk Analysis and Prediction Modeling of Bank Loans.
- ❖ Predicting borrowers' chance of defaulting on credit loans.
- ❖ Accurate assessment of credit risk.
- ❖ Transparency & traceability in Loan recovery decisions.



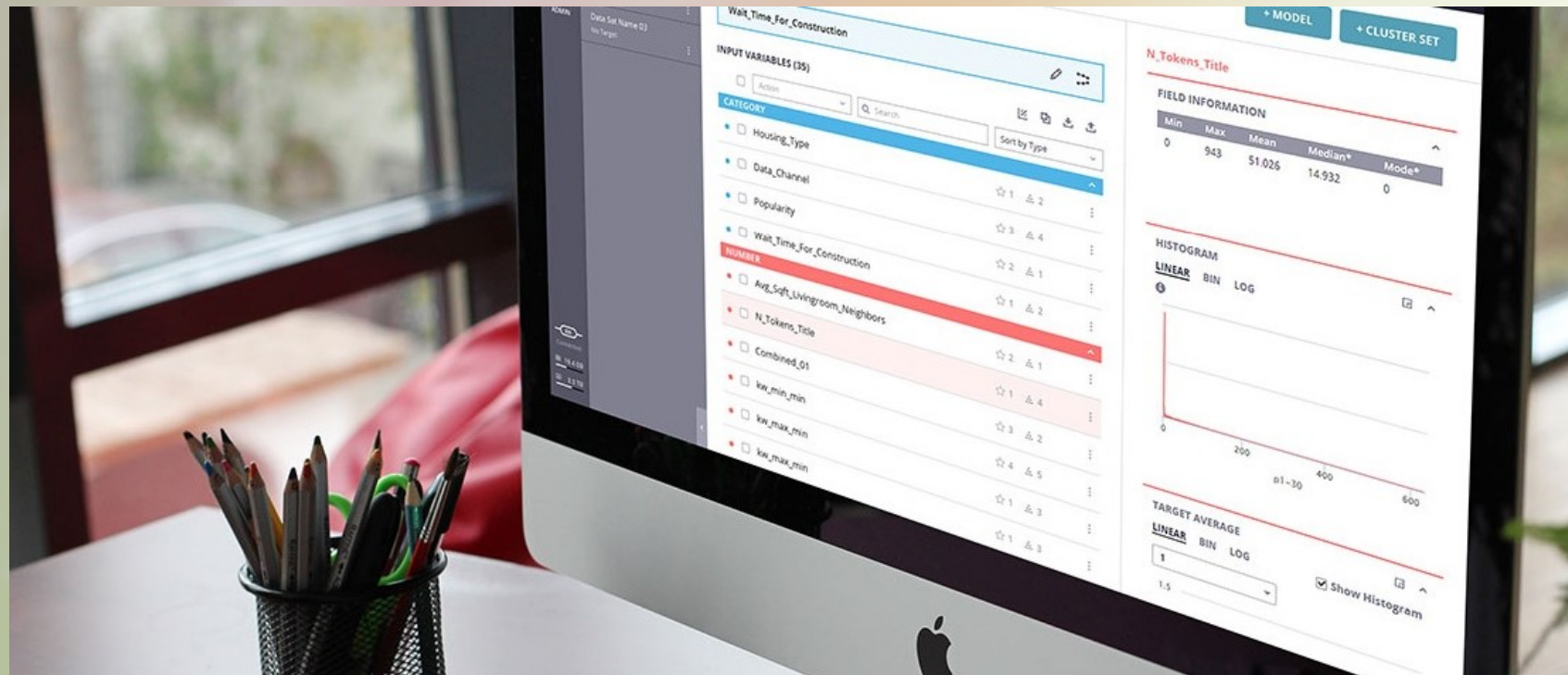
## ***Strengthen your predictive analysis with rich ML algorithm package***

*Create powerful prediction models with proven YPR Informatics-ML algorithms, no hard-coding necessary.*



## Get optimal business rules through automatic clustering

*Create a variety of business rules by discovering many complex patterns hidden within Big Data.*



# Solution Approach



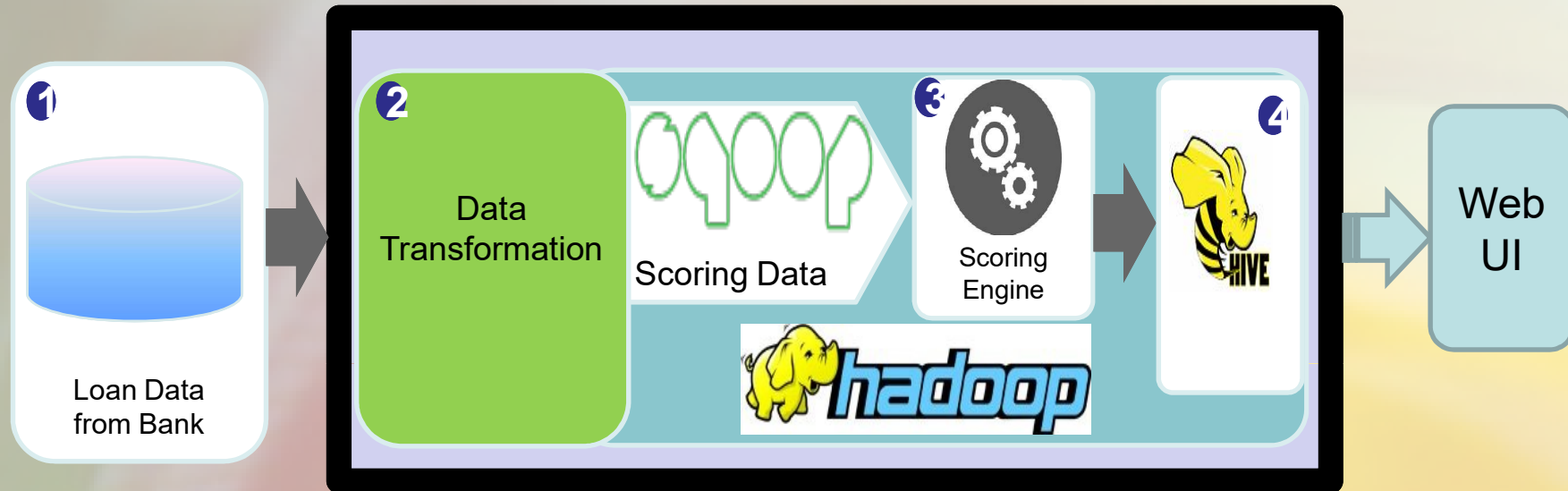
<b>Business Objective</b>	The objective of the project is to develop a credit scoring and decision solution that predicts the exiting Loan customer behavioral and will provide the automated credit scores.
<b>Model Objective</b>	The solution aims to deliver the following <ul style="list-style-type: none"><li>❖ For Accounts in Bucket 1 (60 Days Delinquent) Propensity to move to Bucket 2 (90 Days Delinquent)</li><li>❖ For Accounts in Bucket 2 (90 days) to move to NPA</li></ul>
<b>Approach Methodology</b>	<ul style="list-style-type: none"><li>❖ Defining default for housing and non-housing loans</li><li>❖ Creating the data set for modeling</li><li>❖ Developing the model equation</li><li>❖ Validation and Scoring of the model</li><li>❖ Deployment of the application</li></ul>
<b>Deliverables</b>	Composite algorithms predicting the risk of a person defaulting on loan repayments shall be implemented for the Bank.



# RADAR Scoring Engine



## Architecture and Data Flow Diagram



- 1 Loan data from bank (preferably in tab delimited format) are used to arrive at the fields required for the scoring algorithm
- 2 Raw Data is scheduled to extract and Transform as scoring data
- 3 Our proprietary scoring engine score the data using our Algorithms
- 4 The scored records will be made available for the bank

# Architectural Components



## Hardware:

Hadoop cluster with at least 3 systems each having the following configuration:

- ❖ Dual Quad core CPU with 32GB RAM
- ❖ 2TB disk drive
- ❖ Bonded Gigabit Ethernet
- ❖ Running Ubuntu Linux operating system 14.x

## Software:

Following open-source software is to be available on the systems:

- ❖ Hadoop 2.x version with its components – Pig, Hive, Sqoop and Oozie
- ❖ Java JDK 1.8
- ❖ Eclipse IDE - Mars or above version
- ❖ Tomcat 8 server on one of the systems – for interactive Web UI

# Key Benefits



**RADAR Scoring Engine** is a modular and flexible platform to give your bank a significant competitive advantage through superior credit risk scoring and automated loan origination.

- ❖ Accurate assessment of credit risk Centralized administration of credit rules & policies across various channels.
- ❖ Transparency & traceability in recovery decisions.
- ❖ Automated workflow process from prospect-to-customer, driving operational efficiency.
- ❖ Create cross-sell opportunities Instant decision on most retail products.
- ❖ Bring pricing in line with bank's risk tolerance.
- ❖ Increase customer satisfaction & reduce attrition.
- ❖ Improve portfolio profitability and shareholder returns.

# About us



# YPR Informatics Pvt Ltd.,

*“Young Professionals Racing” on Informatics*

**YPR Informatics** is one of the fastest growing information technology company – built on very strong systems integration, database design, development and administration and application development skills.

## ***Vision :***

To become the preferred Information Management solutions partner for our clients by delivering best of class solutions and services.

## ***Values :***

Improving our client’s business performance, creating long-term relationships and focusing on execution excellence.

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