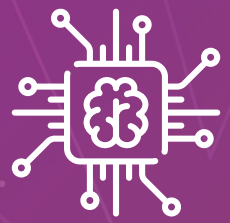
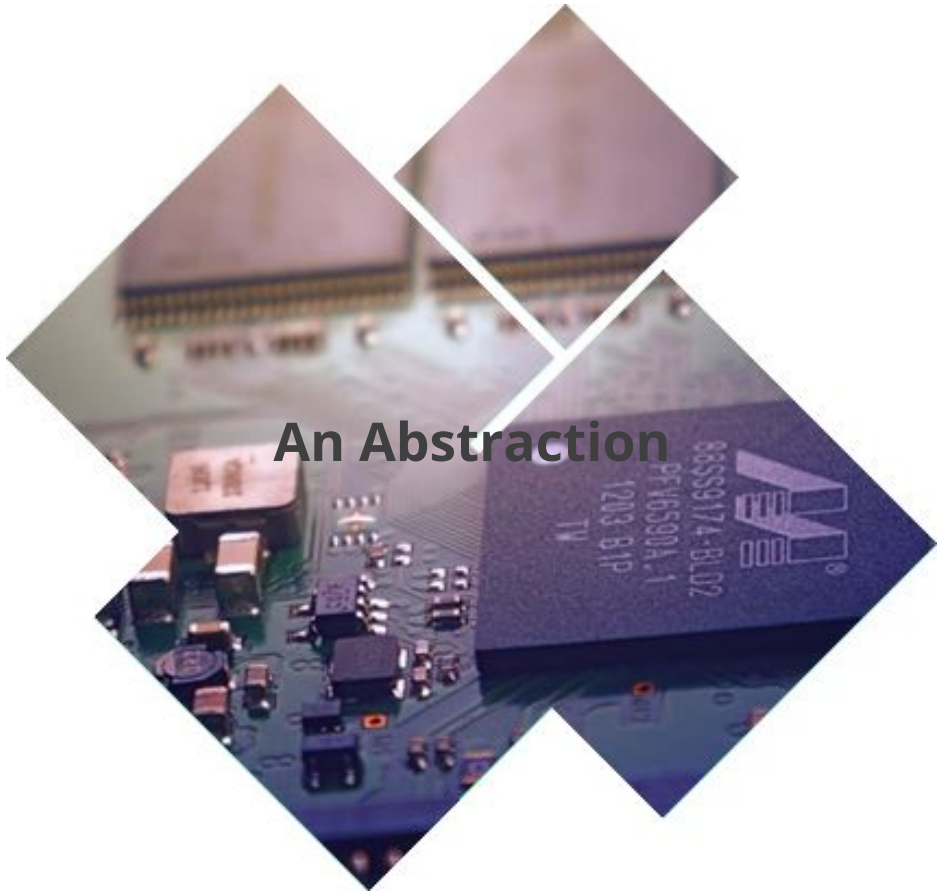


Data-Ease

Software Engineering [CS20006]
2018-2019

WHY?



1

DBMS Are Complex

A DBM system is not easy for everyday people to use and manipulate.

2

Limiting Roles

It is complex to manage different roles and limit access to sensitive data.

3

No Data Accountability

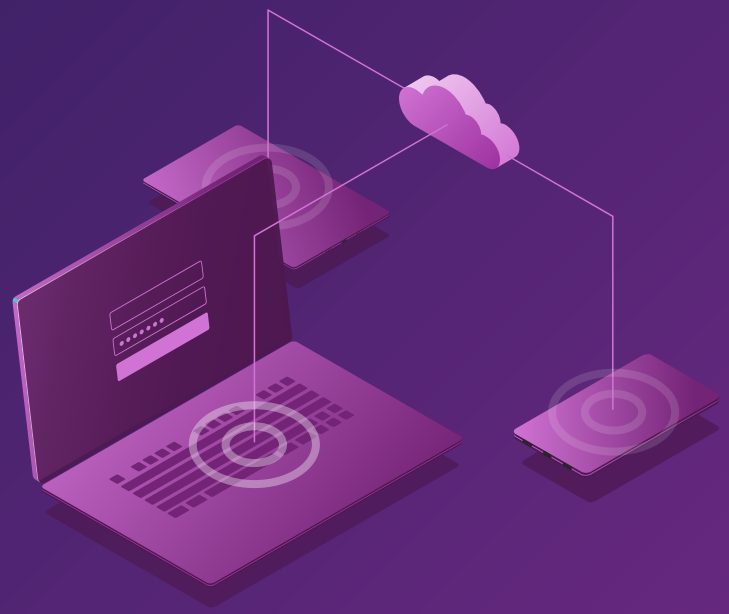
It is very hard to keep track of who are the users and what actions they performed.

4

Textual View

It is hard to operate with a textual interface that most systems come with.

Data-Ease(d)



Simple

Kept simple, with basic functionalities for everyday professionals.

Easy Config

Easy to connect via ConnString environment variable and secured via MD5 hash.

OS Independent

We've used Java which generates bytecode which is system independent.

Flexible

Fixes on already existing database; flexible role management

The Team*

- Shivam Kumar Jha - 17CS30033

  Password Hashing
  Database Env Implementation
  Admin Element
  Home Element
  Writing Documentation
  Role Management

- Kanishk Singh - 17CS30018

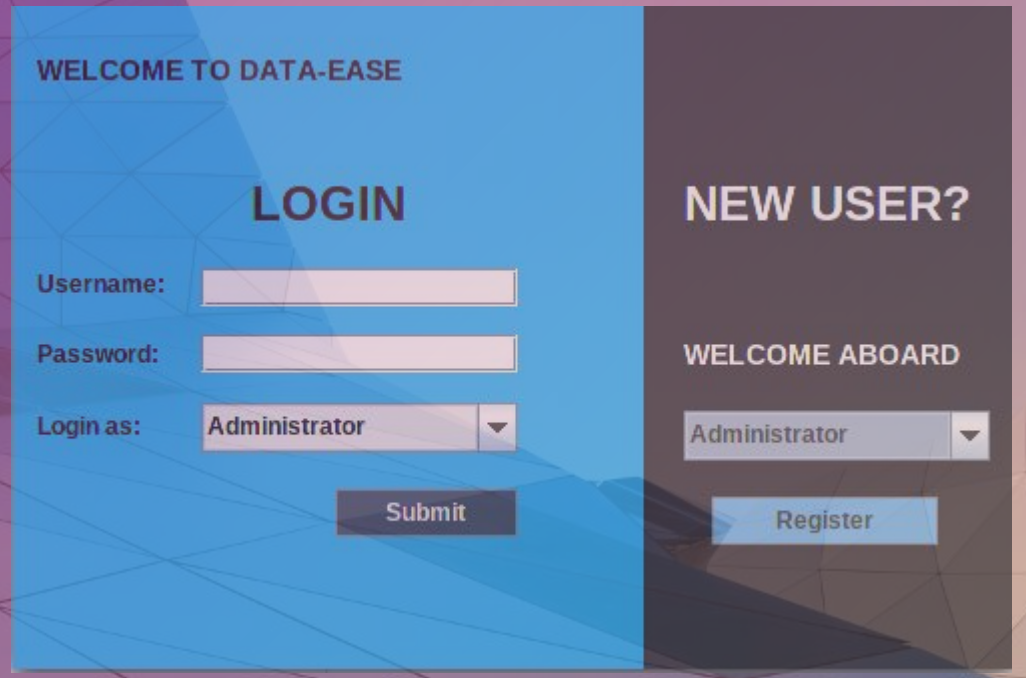
  Home Element
  User Element
  View Table Element
  Database Connection
  Data Entry Element

***SRS, Use-Case and Class Diagram Were Made In Planning Phase**

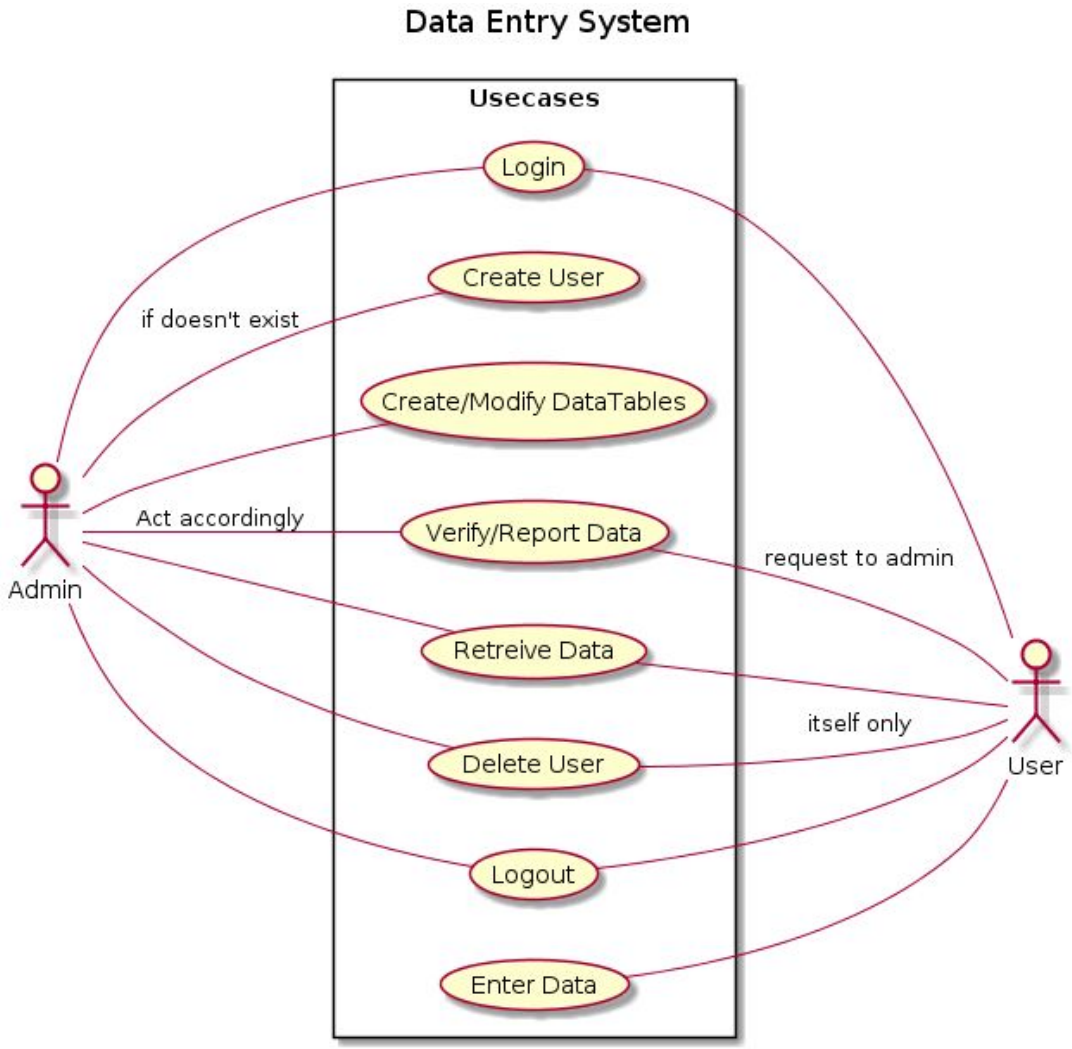
Demo
01

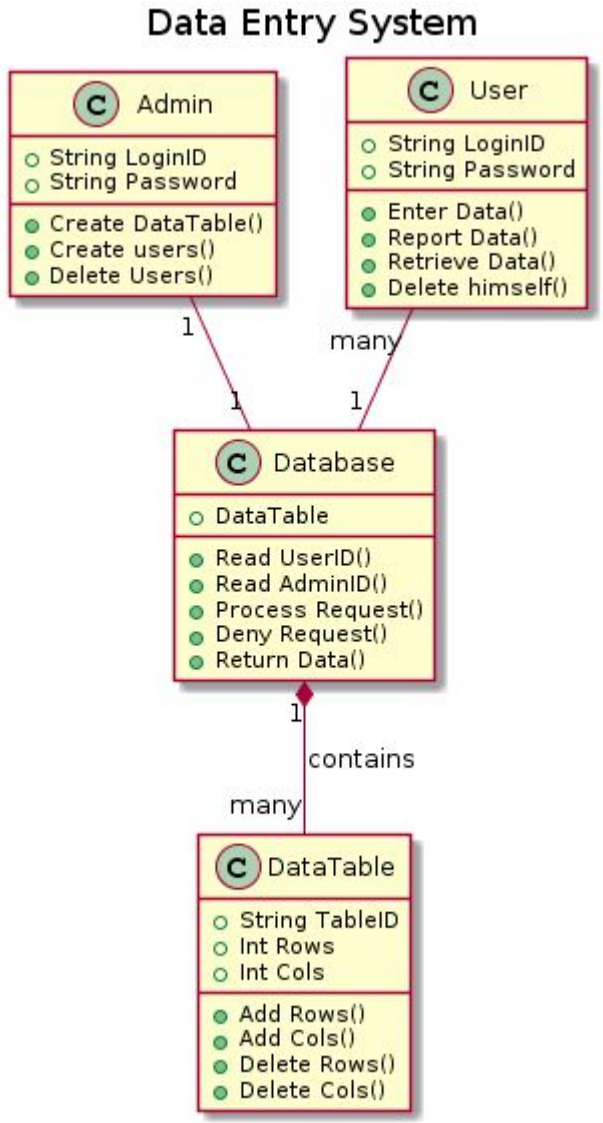
A Peek At It

An Intuitive Approach



Where's The Plan?





There's More To Planning

- Software Requirement Specifications: http://bit.ly/SE19SRS
- Sequence Diagrams
  - Login http://bit.ly/SE19LOGIN
  - Admin http://bit.ly/SE19ADMIN
  - User http://bit.ly/SE19USER
  - Logout http://bit.ly/SE19LOGOUT

How We Board Users?

User Registers With The Application

01

02

Admin Oversees And Approves

User Can View, Visualize And Edit Tables

03

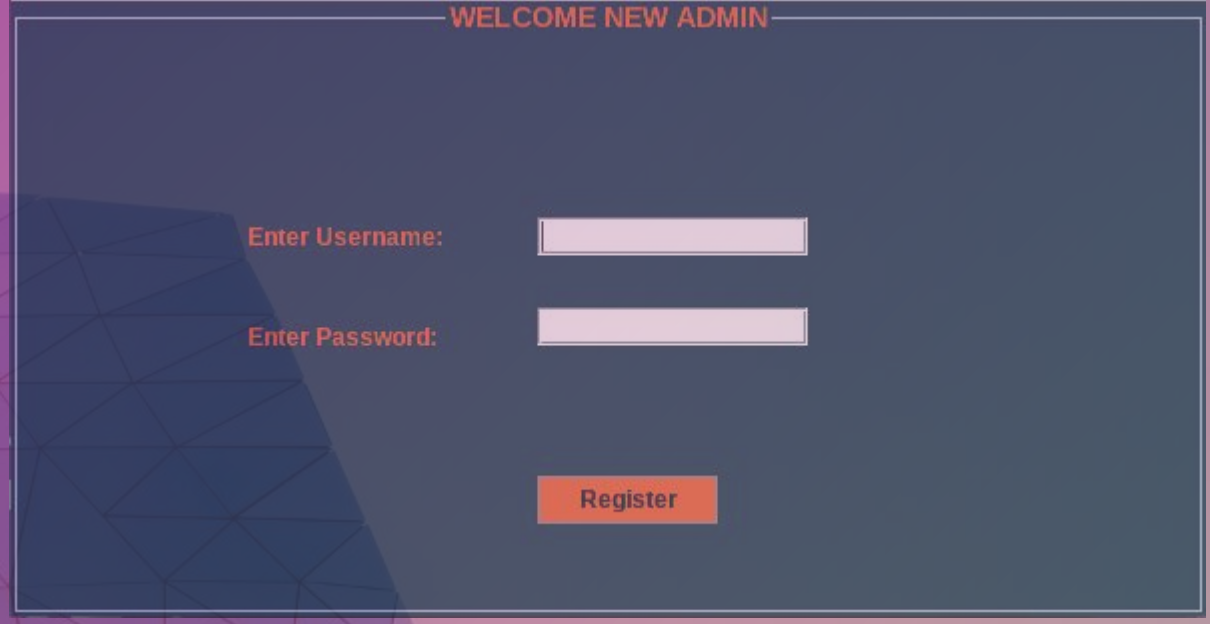
04

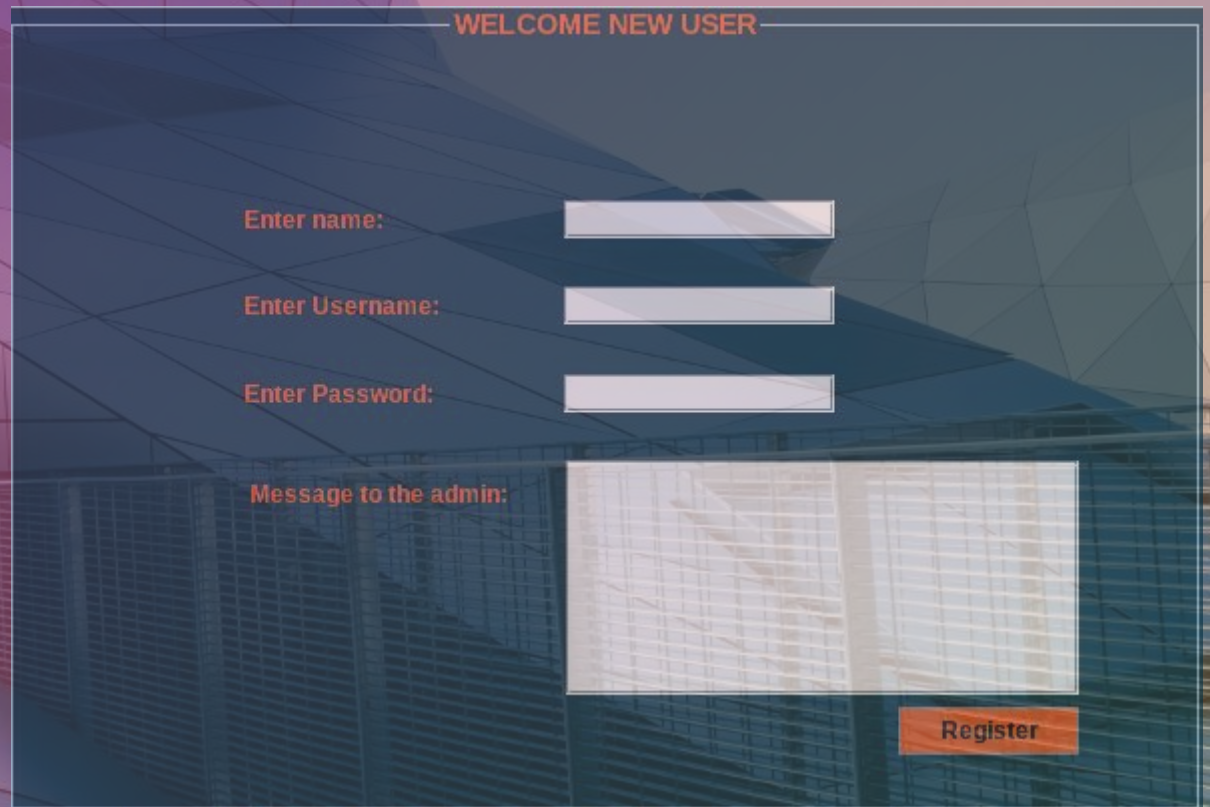
Admin Controls The Edits And Access Rights

Demo
02

Welcome In’

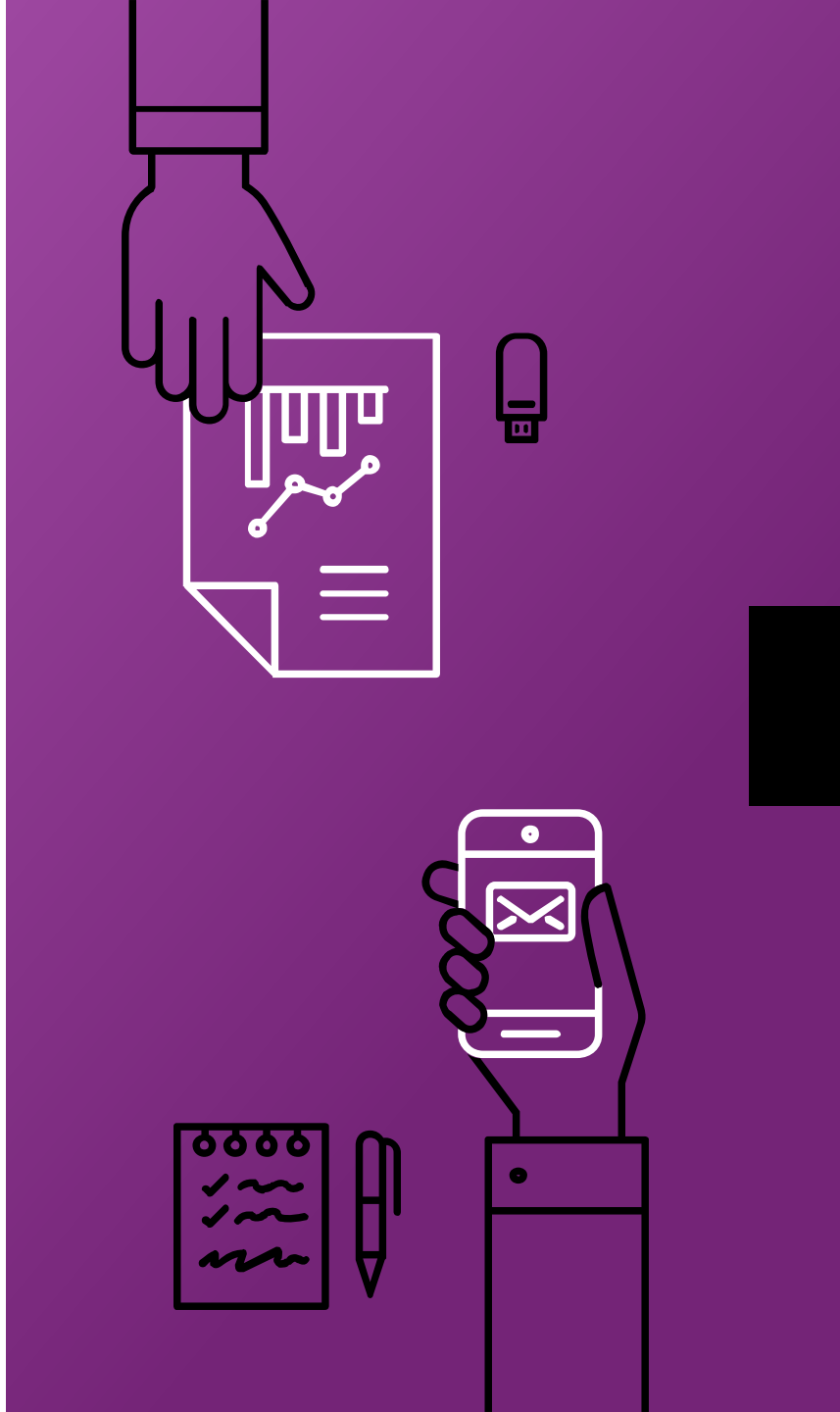
Less Input, Fast OnBoarding





Where Are We?

DBMS	Initiate Conn.	Prepared Statements	Migration
GUI	Registration And Login	Window Linking And Navigation	View Admin/User Info
Admin	Create/ Manipulate Tables	Approve/ Remove User	Monitor User
User	Enter / Add Data	View/ Retrieve Data	Verify / Report Data



Where’s The Magic?

A **complex idea** can **never** be **conveyed**, enough, **with** just **text**!

THE CHALLENGES

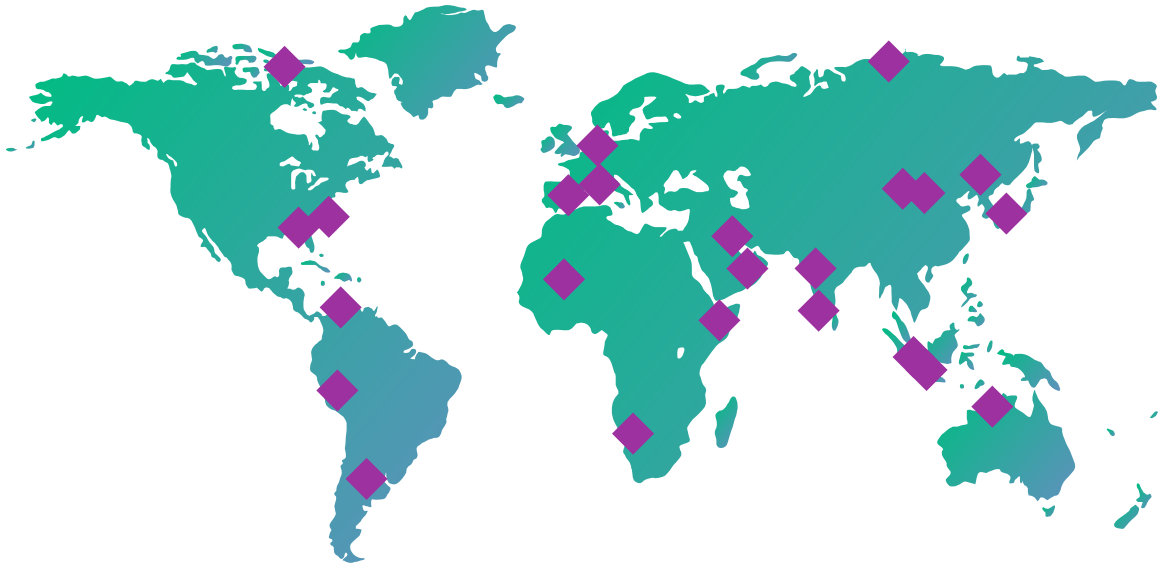
How To Make **Database Platform Independent?**

How To **Bring Together Beauty & Functionality** With Limited Time?

How To Make **Single-Point Hassle-Free** Approval?

How To **Segregate App-Specific Database** From System?

Where We Thrive?



We Have Used The Following Environment On Top Of Linux Operating System:

- Java Development Kit 8
- Java Runtime Environment
- Apache Netbeans IDE
- Java DataBase Connectivity
- Java Swing
- Java Script Pages (jsp)MyAdmin

Source Code Available @

http://bit.ly/SEKGP19

Thank You

How Do We Know So Much?

- Java Byte Reference
  https://www.javatpoint.com/java-bytecode
- Password Hashing In Java
  https://howtodoinjava.com/security/how-to-generate-secure-password-hash-md5-sha-pbkdf2-bcrypt-examples/
- Java Swing Tutorial
  https://www.javatpoint.com/java-swing
- Java DataBase Connectivity Tutorial
  https://www.javatpoint.com/java-jdbc
- Netbeans GUI Builder
  https://netbeans.org/kb/docs/java/gui-functionality.html
- Best SQL JDBC Practices
  https://javarevisited.blogspot.com/2012/08/top-10-jdbc-best-practices-for-java.html
- Bitly Link Shortener
  https://bit.ly