**Candidate 96**

**Sr. J2EE/AWS Developer**

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**SUMMARY**

* Over 8 years of experience in the IT industry with a good command on design, development and test of client server, web based and distributed software applications by using **J2SE** and **J2EE** technologies.
* Experience in software engineering, planning, designing, implementation of cloud infrastructure utilizing **Amazon Web Services** and **Build Release Management**.
* Strong development skills in**Java, J2EE, JDBC, JSP, Servlets, EJB J2EE, JMS MQ-series, JNDI, RMI, C, HTML5, XML, XSL, Java Script, DB2, Oracle, SQServer and Macromedia tools**
* Experience in deploying applications using Application Servers like **WebLogic, JBoss, Oracle App Server, websphere, Web Server Apache Tomcat 7** and **IIS server.**
* Exposed to all aspects of **Software Development Life Cycle (SDLC**) such as Analysis, Planning, Developing, Testing and implementing and Post-production analysis of the projects.
* Experience in implementing **RESTful web services** and **SOAP** based web services Frameworks and **SOA**.
* Experience in **MS SQL Server 2012/2008R2**with **Business Intelligence** in **SQL Server Reporting Service** and **SQL Server Integration Service.**
* Extensive experience in design, installation and administration **of Microsoft System Configuration Manager 2007-2012.**
* Involved in developing Java web based interfaces **using HTML5, CSS3, JQuery, XML** and **JSON**.
* Good understanding of **Java/J2EE** Design Patterns and **n-tier** architecture.
* Having good understanding in **XML** schemas, **XPATH, XSLT** and **XML** parsing using **SAX/DOM, JAXB**.
* Have expertise with an in depth understanding of the wide range of AWS services like **EC2**, Auto-Scaling in launching EC2 instances, Elastic Load Balancer, **Elastic Beanstalk, S3, Glacier, Cloud Front, RDS, VPC, Direct Connect, Route53, CloudWatch, CloudFormation, IAM, SNS**.
* Experience in creating, designing, configuring and managing EC2 instance in VPCs by setting up all the resources like NAT gateway and Internet gateway depending on the requirement using AWS console, **CFT** and **AWS CLI.**
* Created and managed security groups for Amazon **EC2** instances and **Network ACLs** for **VPC** subnets.
* Strong hands-on experience with **Spring IO, Spring Boot**with**Thymeleaf.**
* Expertise in debugging with the IDEs like **Eclipse, WebStrom, NetBeans**.
* Have created and configured elastic load balancers with **EC2 auto scaling groups.**
* Optimized volumes and EC2 instances & Created multi Availability Zone **VPC** instances.
* Created **AMI** images and shared the image with other accounts .
* Performed configuration, deployment and support of cloud services including Amazon Web Services (**AWS**).
* Experience in creating **JSON** scrips for **Cloud Formation Template** based on requirements and launch stacks.
* Have a detail understanding of **Cloudwatch** and can monitor resources of AWS through it.
* Experience in storing sever data into S3 and have in-depth knowledge on **various S3 features like versioning, lifecycle management, logging, events** etc.
* Deployed and supported **Memcache**-**AWS** **ElastiCache**.
* Experience in Installing and configuring **Continuous Integration** and Continuous Deployment Tools like **Jenkins**
* Can configure Jenkins on EC2 servers and integrated it with **AWS CodeCommit**.
* Expertise in implementing the configuration management tools like **Chef, Puppet and Ansible**.
* Good knowledge in using **REST-ful and XML** based web services.
* Used **AquaStudio GUI** to the **Oracle** **11g** database for performing the database operations.
* Written **SQL queries** using **TOAD to unit test** and developed code base.
* Expertise in source code management tools like **Git, SVN.**
* Good knowledge in writing complex **SQL commands**.
* Good knowledge on AWS databases like **RDS, DynamoDB, Redshift, ElastiCache**.
* Expertise in bug tracking tools like **JIRA** and build tools like Bitbucket.
* Experience with **UI testing**, **Acceptance testing**, **Unit testing**, **Test Driven Development(TDD)**
* Extensive experience in developing test cases using **Junit/JMeter/Mockito**.
* Experience in facilitating **scrum** ceremonies.
* A good team player with excellent communication, management, and interpersonal skills.
* Excellent logical, analytical and debugging skills.

**EDUCATION**

**Bachelor of Technology in Information Technology** (2010)

**TECHNICAL EXPERTISE:**

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| --- | --- |
| **Languages** | Java, SQL, PLSQL, C, C++, UML |
| **Frameworks** | Spring, Hibernate, IBATIS, Jakarta Struts 1.1, JPA, JSF. |
| **Database** | Oracle 11g/10g/9i, IBM DB2, MySQL, Cassandra, MongoDB. |
| **J2EE Technologies** | JDBC, Servlets, JSP, JSTL, JNDI, Spring IO, Spring Boot |
| **XML Technologies** | DTD, XSD, XML, WSDL, SAX, DOM, AWS, RESTful and SOAP Services. |
| **UI Technologies** | HTML5, CSS3, JavaScript, JQuery, AJAX, JSF, Angular JS, Node JS, Bootstrap, Json-Parsing, Json-DTD. |
| **Web/App Servers** | Web Sphere 6.1, WebLogic 10.3, Tomcat 5.5/6.0, Jboss6.1. |
| **IDE Tools** | Rational Software Architect (RSA), Rational Application Developer (RAD 6.0), Eclipse, Net Beans and TOAD. |
| **Operating Systems** | Windows, Unix and Linux. |
| **AWS Services** | EC2, S3, Elastic Beanstalk, Auto-scaling, Elastic Load Balancer, Glacier, SNS, SQS, SWF, CloudFront, CloudFormation, CloudWatch, DynamoDB, RDS, Route53, IAM, Functional Knowledge of import/export Snowball, VPC, Direct Connect, ElastiCache, Redshift, Storage Lifecycle Rules, Cloud Trail, Security Token Service |
| **Configuration Management Tools:** | Chef, Ansible, Puppet, Docker |
| **Build Tools** | Ant, Maven, Jenkin, uDeploy and Micro services. |
| **Testing Tools** | JUnit3.8/4.0, Drools, Test Driven Development (TDD), JMeter, Selenium, Cucumber. |
| **Version Control Systems** | GitHub, IBM Clear Case, CVS, SVN and TFS. |
| **ETL Tools** | Informatica |

**EXPERIENCE**

**Client: CDK Global, Hoffman estates-IL May’17 – Present**

**Role: Full Stack Developer**

CDK provide integrated technology solutions to over Auto, Truck, Motorcycle, Marine,

Recreational Vehicle and Heavy Equipment dealers throughout the world.

**Responsibilities:**

* Actively involved in analysis, detail design, development, bug fixing and enhancement in **Agile methodology**. Involved in daily **scrum** and **sprint** planning meetings.
* Assist with creating **cloud migration strategies**; defining delivery architecture, creating the migration plans, designing the orchestration plans, and more. Assist in creating and executing of migration run books.
* Migration from legacy CRM to a new **CRM** platform.
* Worked on responsiveness of the application and explored the fixed width and fluid layouts

using the **Twitter Bootstrap**.

* Using **AngularJS** created custom directives for data manipulations and to display data in

company standard format in UI.

* Designed dynamic client-side **JavaScript** code to build web forms and simulate process for

web application, page navigation and form validation.

* Implemented **Restful** **web services** to perform some business activities.
* Expertly used **Angular** **2** Directives, Pipes, Event Binding, Data Binding, Interpolation,

Injection etc., for building the GUI.

* Designed and developed a web-based client using **Servlets, JSP, JMS, AngularJS, JavaScript, TypeScript, HTML 5 and XML using Spring MVC Framework.**
* Involved in developing Java web based interfaces using **HTML5, CSS3, JQuery, XML, VXML and JSON**
* Developed **Soap and Rest web service** clients to communicate with third party vendors.
* Implemented **Java** and **J2EE** Design Patterns like **MVC, Singleton, Factory, Data Access Object (DAO), and Service Locator.**
* Developed server-side services using **Java multithreading, Java, Springs, Web Services (SOAP, AXIS).**
* Used Spring framework **including Spring core/IoC, Spring Web, Spring Security**.
* Implement **OAuth 2, SAML 2 for AAA** & **Single Sign On (SSO)** using Spring Security
* Responsible for coding **SQL** Statements and Stored procedures for back end communication using **JDBC**.
* All the functionality is implemented using**Spring Boot, Thymeleaf** and **Hibernate ORM**.
* Used **Spring Core** Annotations for Dependency Injection Spring DI and Spring MVC for REST API s and **Spring Boot** for **micro-services**.
* Experience on **AWS mobile hub**
* Created **TypeScript** reusable components and services to consume REST APIs using
* Component based architecture provided by Angular 2.
* Created Amazon ElastiCache nodes, shards and clusters in amazon **ElastiCache** deployment.
* Experience in Installing and configuring **Continuous Integration** and **Continuous Deployment Tools** like **Jenkins**
* Created load balancers (**ELB**) and used **Route53** with failover and latency options for high availability and fault tolerance.
* Used **Log4j** for logging errors, messages and performance logs.
* **Elasticsearch’s** easy-to-use **APIs** and real-time capabilities along with **the availability, scalability, and security** required by production workloads
* Used **Node** **JS** for server side rendering. Implemented modules into **Node JS** to integrate with designs and requirements.
* Experience in using **Plain Vanilla java bean.**
* Used **Spring Core** Annotations **for Dependency Injection Spring DI** and **Spring MVC** for **RESTAPI** s and **Spring Boot** for **micro-services**.
* Using **Docker, Jenkins, VMWare, RHEL, Satellite, Open Shift, Kubernetes, Artifactory, Ansible & GitLab**
* Implemented **MicroServices SOA** and **OAuth Auth** Server with SAML IdP Authentication
* Developing Docker images to support Development and Testing Teams and their pipelines; distributed **Jenkins, Selenium and JMeter images**, **and ElasticSearch, Kibana and Logstash (ELK & EFK) etc**
* Developing scripts for build, deployment, maintenance and related tasks **using Jenkins, Docker, Maven, Python and Bash.**
* Developed for full text search platform using NoSQL **Elasticsearch** engine, allowing for much faster, more scalable and more intuitive user searches for our database of spas worldwide.
* Installed application on **AWS EC2** instances and configured the storage on S3 buckets.
* Developed **API** for using **AWS Lambda** to manage the servers and run the code in the AWS.
* Created **cloudFormation** templates to automate the EC2 instance engenderment.
* Used Amazon **CloudWatch** to monitor the application performance and used the logs to identify any threshold limits.
* Experience in **RoboMQ** integrates SaaS, Enterprise Applications &  using Microservices across networks and clouds
* Implemented an **iPaaS** that pursues the same API-first approach to **integration platform management.**
* Experience in creating **SQL Server Reports**, **handling sub-reports** and writing queries to perform roll-up and drill down operations in **SSRS 2012/2008**
* Involved in **migration of SSRS** reports from **SQL 2005 to SQL 2012/2008** and migration with **DTS to SSIS 2012/2008**
* **Amazon IAM** was used to maintain the user credentials and also involved in creating custom IAM policies to various groups defined within the organization.
* Worked with **NoSQL** database **MongoDB** and developed custom MongoDB applications specific to clients' needs.
* **GitHub** has been used as a Version Controlling System.
* Worked with **CVS** repository, for migrating the code base from CVS to SVN.
* Developed **JUnit** test cases for Persistence layer and Business layer to perform the unit level testing.
* Used **Maven and ANT** for building entire application and deploy them on **Oracle WebLogic server.**
* Experience with messaging frameworks **(ActiveMQ, RabbitMQ, Kafka)**
* Used **Gradle** for build framework and **Jenkins** for continuous build system

**Environment:** Core Java, J2EE, JSP, NodeJS, Servlets, Hibernate, Agile, Scrum, JavaScript, Spring, Eclipse, Rational Application Developer, AngularJS, Spring, IBM BPM, DB2, Oracle WebSphere 8.x, Putty, Web services, XML, GitHub, Mongo DB, Maven, Jenkins, Visio, Log4j, Junit, Drools, Amazon EC2, Amazon S3, Amazon Cloud Watch, AWS Lambda, Amazon IAM, Elastic Search.**,** ElastiCache**,** AWS Data Pipeline.

**Client: Y-USA, Chicago-IL Jun’16 – Apr’17**

**Role: AWS Java Developer**

The Y is a nonprofit like no other. That’s because in 10,000 neighborhoods across the nation, we have the presence and partnerships to not just promise. My role is to develop J2EE applications and deploy them. It is using or experimenting with nearly every AWS service to develop, test, build, and run its most critical workloads

**Responsibilities:**

* Involved in complete **SDLC** life cycle – Designing, Coding, Testing, Debugging and Production Support for over 4+ projects.
* Worked closely with Business Analysts in understanding the technical requirements of each project and prepared the **use cases for different functionalities and designs**.
* Developed strategy for **cloud/virtualization** **migration** and implementation best practices.
* Worked on **multithreading** in Web applications to deal with the asynchronous calls.
* Work in close collaboration with internal customers and teams to develop strategies that address product content and overall user experience design for Catalyst’s clients.
* Developed new features to meet the specifications as set out by lead developer.
* Implemented distinctive Design patterns like singleton, factory and J2EE design patterns like **Business delegate, session façade, Value object and DAO design patterns**.
* Created **POJO classes, Spring configuration** files to use **dependency injection**.
* Used **PL/SQL** to write Stored Procedures, Functions and Triggers.
* Efficiently handled periodic exporting of SQL data into **Elasticsearch**
* Designed new classes and functionalities using various **OOPs** concepts for **CRM** application for customer service, especially using dynamic polymorphism concept.
* Used the JavaScript dynamic functionalities for different UI components and handled the **exceptions**.
* **Interpret IOT Integration flow** development and life cycle management tools using iPaaS capabilities.
* Used **[Amazon Cognito](http://aws.amazon.com/cognito/)** to create unique identifiers for end users that are kept consistent across devices and platforms.
* Experience in RESTful service design, documentation, and implementation experience using **AWS API Gateway**
* Enabling **SSL** Security in Web Environments for **IBM HTTP** Server & **Web Sphere** application Server.
* Used **Spring Core** Annotations **for Dependency Injection Spring DI** and **Spring MVC** for **RESTAPI** s and **Spring Boot** for **micro-services**
* Experience in installing, configuring and maintaining webSphere commerce.
* Got experience in network **performance** management protocols like **SNMP, Telemetry**
* Manage configuration of Web App and **Deploy to AWS cloud server through Chef**.
* **Node.js** used to proxy requests to eCollege Java web services, as well as store application preferences and state data in distributed mongo instances.
* Developed and deployed **ETL components for Data Extraction, Transformation and Loading using Informatica Power Center**.
* Involved in development of Guidelines service which will route the oms request between sentinel and sentry. Developed with Jersey Restful Web services and Mongo DB.
* Developed single page application with **Angular JS**.
* Developed **SWING** Desktop Client to access Cash Services.
* Involved in developing Java web based interfaces using **HTML5, CSS3, JQuery, XML and JSON**.
* Worked on JavaScript framework (Backbone, **Node JS**) to augment browser based applications with **MVC** capability.
* Used **ClearCase** for source code maintenance and **Clear** **Quest** for bug tracking and maintenance.
* Imported tables into physical layer of**Oracle BI Admin Tool** according to the documents provided.
* Created unit and integration based tests for **TDD** approach and automated continuous integration and deployment. Implemented test coverage requirements.
* Ensured that **agile principles** and processes are properly implemented and adopted.
* Setup framework for all current and future front-end projects to use Backbone js, for framework organized module definitions
* Learned to index and search/query enormous number of documents inside **Elasticsearch**
* Used **GIT** as version control application to maintain the update.
* Configure Web server be able to serve **WML** pages.
* Created the project from scratch using **Angular JS as frontend, Node Express JS and Mongo DB as backend.**
* NoSQL database modeling and design in a public cloud environment using **AWS DynamoDB, Azure Document db.**
* Used **BLAZE** for the rules as a rules engine.
* Designed **PING & OAuth** based single sign on solution for Tech Mobile App.
* Involved in writing **JDBC** code to get data base connectivity. /
* Worked with source version control tool **GIT** to manage the code repository.
* All the Business logic in all the modules is written in **core Java.**
* Involved in creating Restful services with the **JAX-WS Provider** and Dispatch APIs.

**Environment:** Java, J2EE, AWS, AWS IAM, AWS S3, Informatica, Spring, Struts, Hibernate, JMS, Servlets, JSP, JS Tag Libraries, Java Script, JQuery, CSS, HTML, JDBC, JNDI, Spring Security, JUNIT, MQ-Series, XML, XSLT, Eclipse, ANT, Web Sphere 8.x, Apache Tomcat server, Windows Azure Cloud, SOAP, WSDL, JAXB, Oracle, Design patterns, Ajax, UDDI, WSDL

**Client: FedEx, TX Mar’15 – Jun’16**

**Role: Java Full Stack Developer**

**FedEx** Corporation is an American multinational courier delivery services company headquartered in Memphis, Tennessee. It is using or experimenting with nearly every AWS service to develop, test, build, and run its most critical workloads. FedEx is using AWS as central part of its technology strategy.

**Responsibilities:**

* Involved in understanding and developing the functionality requested by the clients.
* Following **Agile methodology** in development and having daily **scrum calls**.
* Designed and developed the framework to consume the web services hosted in **Amazon EC2 instances**.
* **Oracle 11g** was used as the database for the application which was hosted in the cloud using Amazon **RDS** service.
* Used **AWS SDK** for connection to Amazon S3 buckets as it is used as the object storage service to store and retrieve the media files related to the application.
* Developed API for using **AWS Lambda** to manage the servers and run the code in the AWS.
* **Amazon IAM** was used to maintain the user credentials and also involved in creating custom IAM policies to various groups defined within the organization.
* Used Amazon **CloudWatch** to monitor the application performance and used the logs to identify any threshold limits.
* Used **Azure document DB** to store the data for metrics and backend reports.
* Involved in discussion with ops team to resolve ad hoc issues.
* Worked on **Hibernate** object/relational mapping according to database schema.
* Extensively used **Spring IoC** for managing the component dependencies from the Event Handlers to hibernate and Services.
* Worked with **NoSQL** **Cassandra** to store, retrieve, and update and manage all the details of migrated applications.
* Used **SVN** as configuration management tool for code versioning and release.
* Worked with **CVS** repository, for migrating the code base from CVS to SVN.
* Worked on Embedded Tomcat to deploy the code internally.
* Used automated build tools like **TeamCity** and **Jenkins**.
* Writing **UNIX shell** scripts for the Procmon Jobs.
* Used **AquaStudio GUI** to the Oracle 11g database for performing the database operations.
* Involved with the QA testing team to ensure the quality of the developed applications.
* Developed front end using **the JSF, JSTL, HTML5, CSS3, JavaScript, JQuery and AngularJS**.
* Developed Junit test classes for unit testing purposes.
* Involved in setting up **Maven configuration** and helping Continuous Integration (CI) Issues.
* Developed server running script for automation using the JBoss 6.3 application server
* Extensively used GIT as the version controlling Tool.
* Configured **Log4j** for adding the debugging information in the code base.
* Involved in debugging the defects, code review and analysis of Performance issues.

**Environment:** Java, Multithreading, core Java, Spring 4.0, Hibernate ORM 4.3.0, Spring web-flow,

Spring MVC, Spring AOP, Spring Hibernate, JSP, JSF 2.2, JSTL, HTML5, CSS3, Ajax, JavaScript, AngularJS, Node JS, XML, Web services (Soap and Rest), JBoss 6.3, Oracle11g, Amazon EC2, Amazon S3, Amazon Cloud Watch, AWS Lambda, Amazon IAM, Elastic Search, GIT, JIRA , Junit, Unix ,Log4j.

**Client: Comerica Bank, Detroit-MI Oct’14 – Feb’15**

**Role: Build and Release Engineer**

**Comerica Bank** is one of the secured financial institutions that serves huge domain of customers. Bank offers various financial and banking services to its customers. The current application is a part of online banking that allows a customer to pay bills securely as well as enroll in monthly automatic recurring bill payment. The functionalities involved in e-bill payment are Add a Payee, make a Payment, Set up Automatic Payments, Receive Bills Electronically, Request E-mail Notifications and Review Payments. The application also supports intra and inter-bank transfer of funds for a given customer.

**Responsibilities:**

* Developed and supported the Software Release Management and procedures.
* Performed all necessary day-to-day Subversion/CVS support for different projects.
* Responsible for design and maintenance of the Subversion/CVS Repositories, views, and the access control strategies.
* Manage all **CM tools** (JIRA, Confluence, Artifactory, SVN, Maven, Jenkins, ANT, Git, GitHub, and Visual Studio) and their usage / process ensuring traceability, repeatability, quality, and support.
* Managed tools like Subversion, **Jenkins, JIRA** and Performed maintenance and troubleshooting of build/deployment systems.
* Created Fuel NA's Q/A process; equipped and set up the **Q/A lab**.
* Wrote Pom.xml for Maven application builds automation.
* Experience integrating **JUnit** check style code analysis and testing during the build.
* Used **Shell** and **Perl** scripting to deploy artifacts that are built by Maven.
* Managed and performed the environment related configuration changes as a part of deployment.
* Senior Developer for a Documentation Project which involved using a combination of XSLT, Java and C to produce and render PostScript files from XML data.
* Deployed the archives to **Tomcat** Application Servers.
* Served as a partial administrator for **Unix** Machines.
* Performed re-starts and xml configs and post deploy setups and brought application up for testing.
* Implemented & maintained the branching and build/release strategies utilizing subversion/CVS.
* Used **ANT** as a build tool on Java projects for the development of build artifacts on the source code.
* Automated the build and release management process including monitoring changes between releases.
* Deployed the Java applications into web application servers like **Apache Tomcat.**
* Executed user administration and maintenance tasks including creating users and groups, reports and queries.
* Worked as a **system administrator** for the build and deployments process on the enterprise server.
* Involved in periodic archiving and storage of the source code for **disaster recovery**.
* Administered **Hudson** and responsible for creating new projects and enhancements for old projects.
* Responsible for Plugin Management, User Management, regular incremental backups and regular maintenance for recovery.

**Environment:** Subversion, CVS, Java/J2EE, ANT, Hudson, LINUX, XML, Apache Tomcat, Oracle, Perl Scripts, Shell scripts.

**Client: ByteApha Solutions Jan ’13– Sep’14**

**Role: Java Developer**

**ByteApha Solutions** want to make your web experience as intuitive as it can be. You will be able to navigate around without any ads or cyber noise as we like to call it!

**Responsibilities:**

* Responsible for designing and developing Manage Purchase Order Web Service and presentation layer
* Designed and developed Enterprise Eligibility business objects and domain objects with Object Relational Mapping framework (Hibernate).
* Developed Presentation layer components comprising of **JSP, AJAX, CSS, and JQuery**.
* Implemented Asynchronous Functionality using **jQuery Ajax.**
* Designed and Implemented Spring Framework based Restful service for handling the AJAX requests.
* Extensively involving in writing database coding, complicated functions, Triggers, Types, Views and Packages
* Developed **DAO API** to manage the payment information using **Hibernate ORM**.
* Used Log4j logging framework for logging messages with various levels written throughout the java code
* Used Web Services for creating rate summary and used **WSDL and SOAP** messages for getting insurance plans from different module and used XML parsers for data retrieval.
* Used Eclipse based **STS IDE for designing, coding and developing** applications
* Developed test cases and performed unit testing using **JUnit**.
* Documented designs on confluence using class diagrams, sequence diagrams and high-level activity diagrams using **UML** from the requirements.
* Used Maven script for building and deploying the application.

**Environment:** Spring Framework, Hibernate ORM, JQuery, CSS, AJAX, Html5, SQL, JDBC, SOAP Web Services, Restful services, Eclipse(STS), Web Logic, SVN, JUnit, JIRA, Maven

**Client: Medicon HealthCare. June '09–Dec '12**

**Role: Java Developer**

**Medicon Health Care Pvt.Ltd** has won many accolades in the domestic and international pharmaceutical domain. We are engaged in manufacturing & exporting of pharmaceutical products for acute care market etc. We are a leading group of Pharma companies that is headed by an experienced management involved in the diverse field of pharma industry.

**Responsibilities:**

* Requirement Study and Analysis
* Developed **Use Cases, Class Diagrams, Activity Diagrams and Sequence Diagrams**.
* Developed **Java Server Pages** (JSP) for the front end and Servlets for handling Http requests.
* Deployment on the **Tomcat Server.**
* Specifying the data flow using **XML and DTD**.
* Running Sqoop for importing data from Oracle & another Database.
* Implemented database using SQL Server.
* Developed **GUI using JSP, HTML and DHTML**.
* Designed tables and indexes
* Developed web forms using HTML for the application.
* Developed data insertion forms and validated them using **JavaScript.**
* Created Stored Procedures, Functions and Triggers using **PL/SQL**.
* Testing the application and troubleshoot and fixed bugs

**Environment:** JSP/Servlets, HTML, JDBC, Oracle, Java Beans MS-Access, Java