

# VIVEK SAGAR

## Sr. BUSINESS SYSTEM ANALYST



### PROFESSIONAL SUMMARY

- ❖ Senior Business Systems Analyst with 8+ years' experience on **Business Process Modeling, System and Data Analysis** in Finance, specializing in **Capital Markets, Trading Life Cycle** and **Portfolio Management**.
- ❖ Expertise in acting as a Liaison in **Risk/Operations, Compliance, Treasury/Accounting** and **Finance/Traders**.
- ❖ Extensive knowledge, expertise and involvement in various phases of **Software Development Life Cycle (SDLC)** in **Waterfall, Scrum, Agile** and **Scrum-Waterfall Hybrid** software development life cycle environments.
- ❖ Experienced in requirement elicitation, analysis & detailing, **AS-IS** and **To-Be** designing, **GAP Analysis, Process Analysis, Risk Analysis, Document Analysis, Stakeholder Interviews, JRP, Requirement walkthroughs**.
- ❖ Proficiency in gathering **SMART (Specific, Measurable, Attainable, Realistic, Timely)** requirements and transforming them into **Functional** and **Non-Functional Specifications**.
- ❖ Skilled at **Gap analysis, SWOT analysis, Risk analysis, Cost benefit analysis, Impact analysis, Change management, Feasibility study** and **Viability study**.
- ❖ Clear and thorough documentation for business & technical complexity – **RFP, SLAs, Project Initiation Document, BRD, FRD, NFRD, SRS, Meeting Minutes, Requirement Tractability Matrices**.
- ❖ Facilitated various elicitation techniques like **Survey/Questionnaires, Interviews, Brainstorming, Focus group, Requirement workshops, Reverse engineering, Document analysis**, and **JAD sessions**.
- ❖ Analyzed and managed **Change Requests**, determined Scope, performed **impact** and **Cost Benefit Analysis, Feasibility studies** and **Risk analysis** and maintained **Risk Register**.
- ❖ Proficient in creating page **Mock-ups, Wireframes** and dynamic **UI prototypes** – **HTML, MS VSIO, Balsamiq**.
- ❖ Proficient in preparing **UML-Use Case, Sequence, State Chart, Activity, ER** and **Class Diagrams** using **MS Visio**.
- ❖ Experienced in tracing requirements throughout the development using **Requirement Traceability Matrix(RTM)**.
- ❖ Proficient in handling **change request management**, effectively implemented change by performing both **business Impact analysis** and **technical impact analysis** of the change on the **scope** of the **project**.
- ❖ Worked with QA team to design **Test plans, Test Scenario, Test Cases, Test Data** and **Test Objective** and collaborated in various type of testing like **Functional Testing (Black Box Testing)** and **UAT** using **HP QC/ HP ALM**.
- ❖ Proficient in **Three-Tier architecture, Ajax, Web Services REST** and **SOAP API, XML** and **JSON** messages and was responsible for **API Documentation** using **MS Excel**.
- ❖ Fluency in **API documentation (JSON documentation & XML documentation)** using **Swagger**.
- ❖ Involved in designing an integration solution architecture on **WebLogic Integration** along with the architects by providing a detailed requirements definitions, which include **Business Process management, Data Transformation, Connectivity, Application Monitoring** and **User Interaction**.
- ❖ Experienced in **Data Analysis, Data Profiling, Data Migration, Data Integration** and **Metadata Management Services**.
- ❖ Developed conceptual **Data Model, Data Normalization, Logical Design** considerations; **Created Logical Data Models**. Identified key elements, table structures and aid database design. **Data Mining, Data Cleansing & Data Mapping** and helped with **Data Modeling, Indexing** and **Updating plan**.
- ❖ Extensive implementation knowledge of **Data warehousing, Data Structures, Schemas, Data Marts** and **OLAP Operations** such as **Roll-Up, Drill-Down, Slice, Dice** and **Pivot**. **Strong knowledge of Data-Migration, Data Lineage, Data Migration to Cloud, Systems Mapping** and **Data-Governance Processes**.
- ❖ Thorough understanding of **Business Intelligence (BI)** and experience in creating interactive, analytical dashboards **Canned & Ad Hoc** reports using **Tableau** and **IBM Cognos** for decision making.
- ❖ Worked with **SMEs'** to understand **Key Performance Indicators (KPIs')**, and **Service Level Agreements (SLA)** to enhance application performance through data exchange between external **Web Services**.
- ❖ Well versed with writing **SQL** queries to integrate and extract data for analysis and reporting.
- ❖ Understanding of **Test Driven Development (TDD), Behavior Driven Development (BDD), and Acceptance Test Driven Development (ATDD)** used in **Test-Centric Development**.

- ❖ **Certified Scrum Master (CSM)** who has **Facilitated Scrum Ceremonies - Daily Scrum, Sprint Planning, Review and Retrospective Meetings**. Maintaining scrum reports **Burn Up/Burn down Charts, Velocity Chart, Impediment list, Technical Debt Backlog** and was involved with PO in **Product Backlog Grooming**.
- ❖ Successfully facilitated **Retrospective Meeting** and used various interactive techniques like **Silent writing, Starfish and Sailboat** among others and prepared action items to eliminate **Impediments**.

## **TECHNICAL SKILLS**

Operating Systems	Windows XP/Vista/7/8/10, Macintosh, Linux.
Modeling Tools	MS Visio, Lucid Chart, Rational Rose.
SDLC Methodologies	Waterfall, Waterfall Scrum Hybrid, Agile-Scrum, Agile, XP & RUP
Business Skills	Process Modeling, Change Management, GAP Analysis, Impact Analysis, SWOT Analysis, JAD Sessions, Project Scheduling, Project Budgeting.
Data Warehousing	Data Modeling, Data Marts, OLTP, OLAP, Data Mining, Slicing/Dicing, Drill Up/ Drill Down, Pivot.
Project Management Tools	MS Project, MS SharePoint Server.
Requirement Management	JIRA, Rally, HP ALM, MS Office, Confluence, ClearQuest.
Testing Tools/Defect Tracking	HP QC, Load Runner, Cucumber, Bugzilla, JIRA, Test Director, Soap UI, Cucumber, Gherkin.
Reporting/BI Tools	Tableau Desktop, IBM Cognos, Tibco, MS Excel, SAP Logon, Spotfire.
ETL Tools	Informatica, Oracle Warehouse Builder.
Methodology Tools	JIRA, HP ALM, RALLY.
Databases	MsSQL, Oracle, MS Access.
Finance Tools	Thompson Reuters, Experian, Bloomberg B-Pipe, MorningStar.
Languages	HTML, XML, SQL, .Net, Java.

## **DOMAIN KNOWLEDGE**

Finance	Portfolio Management, Capital Markets, Trading Life Cycle, Financial Instruments, Equities (Stocks, ETF, Equity Linked Notes), Fixed Income (Bonds, Convertibles, T-Notes, T-Bonds), Derivatives and Swaps (Options, Futures, Forwards), Reserve Management and FX (FX Options, FX Futures, Currency Swaps, Currency Forwards, FRA), Money Market Instruments (Repo and Reverse Repo) and Position Management and Monitoring.
Risk and Compliance	Credit Risk, Market Risk, BASEL, DODD-RRANK, SOX, Bank Secrecy Act, GLBA, PCI DSS, SEC, FINRA and NYSE Regulations, Investment Act.

## **PROFESSIONAL EXPERIENCE**

**HSBC, Buffalo, New York**

**APR 2016 – DEC 2017**

### **SR. BUSINESS SYSTEMS ANALYST**

**SCOPE:** The scope of my project was to consolidate disparate trading, risk and reserve management systems and automate bank specific tasks like payments, conformation, settlements, swift messages while expanding product coverage to improve market operations by providing end-to-end processes for all asset classes. The solution also enabled us to conduct monetary activities, manage reserves and control risk on a single automated platform. Major overhaul of the Treasury and Portfolio system was also performed to enhance the entire Trading Life Cycle.

### **ROLES AND RESPONSIBILITIES**

- ❖ Strong understanding of **Trade Life Cycle, Front Office, Back Office, Capital Markets, Derivative & FX market**.
- ❖ Emphasized on understanding the project's requirements from the business perspective and translate them into functional deliverables and gathering requirements for the automation of the Payments, Conformations, Settlements and more.
- ❖ Conducted high level requirement gathering activities like **JAD sessions, Focused Groups, One-on-one Interviews** and **Document Analysis** with the stakeholders.
- ❖ Created **Wireframes, Mock Ups** and **Prototypes** after closely collaborating with the business users.
- ❖ Created **Business Requirement Document** and **System Requirement Specification** incorporating **business, functional, non-functional, data** and **GUI requirements**.

- ❖ Prepared and analyzed UML diagrams like **Use Case Diagrams, Sequence Diagrams** and **Activity Diagrams** using **MS Visio** to analyze and design structure, behavior and interactions in the system design.
- ❖ Created and reviewed functional requirement documents, use cases, issue logs, project status documents, scope change documents and mapping specifications.
- ❖ Interacted with Financial Analysts to understand **Fundamental analysis, Financial models** to calculate **Expected Return, Market Risk and Portfolio Risk** of the portfolio to be used in **Analytical tools**.
- ❖ Helped PM in **ROI Analysis, Cost-Benefit Analysis** and **SWOT analysis** in order to be prepared for potential business and technical risks to the system and Handled **requirement churn** by assisting SMEs in **Impact Analysis**.
- ❖ Documented **Risk Analysis** of the requirements to identify the key business risks areas for the project and prioritized the application development and testing.
- ❖ Assisted creation of **Test Cases, Test Plans, Test Scenarios** and created **forward and backward Traceability Matrices**. Conducted **User Acceptance Testing (UAT)** and actively participated and facilitated testing of the system during **Smoke Testing, Black Box Testing** and **Regression Testing**.
- ❖ Assisted with user testing of features. Performed interface and integration and **Component testing, Sanity testing**. Developed and maintained quality procedures and ensured that appropriate documentation was in place.
- ❖ Involved in **AWS Data Pipeline Documentation** along with the AWS Architect in **Defining the Pipeline** according to the **Business Logic** for data driven Workflows and **Transformation** of the data.
- ❖ Assisted AWS business leaders to develop and define key business questions, then work backwards to deliver **Reporting and Visualization** that answer those questions.
- ❖ Prepared the **API Gateway API Documentation** which involves individual documentation parts associated with specific **API entities** that include **API, resource, method, request, response**, as well as authorizers and models.
- ❖ Leverage **S3, Amazon RDS, Amazon Athena** and similar technology to make sense of large data sets and boil them down to meaningful, actionable intelligence consumed by the organization.

**ENVIRONMENT:** Waterfall, MS Visio 2013, JIRA , MS Office 2013 (MS Word, MS Excel, MS PowerPoint), Wireframes, HTML 9.0, CSS 3.0, JavaScript, AJAX, Route53, Amazon IAM, Amazon EC2, AWS Elastic Beanstalk, Aache Tomcat, Amazon EC2 Container Services, Elastic Load Balancing, Virtual Private Cloud, Cloud Trial, Amazon API Gateway, Amazon S3, PostgreSQL, Amazon RDS, Amazon Aurora Engine, Amazon Athena, Amazon Quicksight.

**EATON VANCE, BOSTON, MA**

**FEB 2015 – MAR 2016**

### **SR. BUSINESS SYSTEMS ANALYST**

**SCOPE:** This was an enhancement project to support investment decision makers in better management of their investments by improving the **Portfolio Dashboard**. The new dashboard enabled better **Performance overview, Improved analytics**, Portfolio drill downs and comments from Analysts and Portfolio Managers. This would support **Asset management**, reporting and performance tracking for the existing investors.

### **ROLES AND RESPONSIBILITIES**

- ❖ As a BSA developed good understanding of Financial Instruments, Asset Allocation, Commodities, Bonds, Corporate Bonds, Money market instrument.
- ❖ Conducted **JAD sessions, Document analysis** and **Interviews** for the requirements Elicitation.
- ❖ Decomposed the scope from the **BRD** into user stories by conducting a **story writing session** with the Product owner and then the acceptance criteria for the **PSPI (Potentially Shippable Product Increment)**
- ❖ Created User Stories and led the **Planning Poker** to estimate them in **Sprint Planning and Backlog Grooming meetings**.
- ❖ Assisted and participated in writing **User stories, creating Use Cases, Use case diagrams, Workflow Diagrams, Sequence Diagrams, and Class Diagrams** and documented design future enhancements for the trading platform.
- ❖ Involved in **Test Planning, Test Preparation, Test Execution and Issue Resolution and Report Generation** to assure that all aspects of a Project are in Compliance with the Business Requirements.
- ❖ Handled **Requirement churn** during the project by performing **Impact Analysis** by checking the feasibility in maintaining the **Triple Constraint** and discussing them in **Daily Scrum**.
- ❖ Involved in systems integration testing, web services **API testing** using **Swagger**.
- ❖ Experienced in **API** documentation for **REST API** using **JSON** and was a part of **API Testing** and measured the data flowing between request and response.
- ❖ Prepared the necessary Data Flow documentation and visuals to ensure clarity in **Data lineage** and firm understanding of **Developed data solutions**.

- ❖ Created Data Models using **Logical** and **Conceptual ER** diagrams and Assisted the **metadata repository management**.
- ❖ Designed data models and conducted **normalization and de-normalization** of data to fit **OLTP and OLAP** frameworks, **slicing and dicing of data marts** for analytical decision making support.
- ❖ Experience in **Extraction, Transformation and Loading (ETL)** using **Informatica Power Center 7.1**
- ❖ Worked on Service Oriented Architecture (**SOA**), **REST**, **SOAP**, **XML**, **API**.
- ❖ Involved in **Data Mapping Documentation** for **Source to Target data** and using **REST** based API via **JSON**.
- ❖ Tracked the **defects using HP ALM** and created an **Error Repository** and managed the testing process with the QA team.

**ENVIRONMENT:** SDLC, Scrum – waterfall Hybrid, MS project, MS office Tools, MS Project, MS Visio, UML,XML, AJAX, API, JAVA EE 6, Oracle 11g, Spotfire and JIRA, Informatica Power center, Eclipse, Hibernate Spring.

**STATE OF NEW JERSEY, TRENTON, NJ**

**NOV 2013 – DEC 2014**

#### **SR. BUSINESS ANALYST**

**SCOPE:** The project was aimed at creating **Enterprise Data Warehouse** system to provide budget allocation, expenditure tracking and enhanced financial reporting by integrating different data sources to State Data Center. Legacy non-integrated databases are a core to business processing. Integrated system would provide ease of access, analysis, transparency and enhanced reporting capabilities.

#### **ROLES AND RESPONSIBILITIES**

- ❖ Understood **state of art** processes by interacting with stakeholders and documents analysis and performed **GAP** analysis to assist Product Owner and Project Manager in planning the transition.
- ❖ Facilitated **JAD sessions** as **Moderator** and conducted **interviews** with various **Subject Matter Experts (SMEs)** and **stakeholders, process reviews** and **policy & procedure reviews** to elicit requirements.
- ❖ Prepared **Business Requirement Document (BRD/HLD)** and assisted preparation of **System Requirement Specification (SRS)**. Analyzed, modified and validated these documents.
- ❖ Identified and categorized all relevant stakeholders involved in the project using **RACI Matrix**.
- ❖ Created **Use Cases** and built **Use Case Diagram** and **Activity Diagram** using **MS Visio**.
- ❖ Managed and tracked requirements using **HP ALM** through Application Life-Cycle.
- ❖ Worked with QA team to design and develop **Test Plan** and **Test Cases** to perform **User Acceptance Testing (UAT)**, **Functional Testing** and **Regression Testing**.
- ❖ Assisted in **API documentation** (JSON documentation & XML documentation) using **Swagger**, IO docs for JSON.
- ❖ Involved in **API testing** for **JSON** and **XML** and measured the data flowing between **request** and **response**.
- ❖ Assisted **Data modeling** process by creating **conceptual** and **logical ER diagrams** and designing **database schemas** to help development of an accurate **Data Warehouse Structure**.
- ❖ **Integrated** various **OLTP** to the **OLAP** by using **Informatica** as an ETL tool and used **Tableau** as reporting tool. Also maintained the **Bill Inmon and Ralph Kimball Paradigms**.
- ❖ Served as the subject matter expert for the following practices: **Data Governance, Data Warehousing, Data integration, Visual Analytics** and **Business Process Management**.
- ❖ Assisted in increasing **Data Integrity** by performing **Data Normalization** and adding **Data Verification** and **Validity** to maintain accuracy and effectiveness of data,
- ❖ Performed **Data Mining** to find correlation and pattern in existing data and constructed **SQL queries..**
- ❖ Was involved in using **Tableau** for effective reporting to provide **Business Intelligence (BI)** to facilitate expenditure tracking using various matrices critical to decision making.

**ENVIRONMENT:** Waterfall, MS Office (MS Word, MS Excel, MS PowerPoint), Tableau, Informatica, MS Visio, MS Project, HP ALM, API, Wireframes, Mock-Up Screens, MySQL Server, SharePoint, GAP Analysis, UML, UAT testing.

**ALLY FINANCIAL, CHARLOTTE, NC**

**AUG 2012 – SEPT 2013**

#### **SR. BUSINESS ANALYST**

**SCOPE:** As ALLY financial AML Business Analyst the scope of my project was to develop **Anti-Money laundering surveillance system** that provided AML solutions as a part of compliance and Legal division and also assisted in ALLY financial Anti-Money Laundering Program. The system could **analyze transaction data** based on a group that may include at least one of **peer comparison, expected level of activity and debit/credit flow through**.

#### **ROLES AND RESPONSIBILITIES**



- ❖ Knowledge of the **Dodd-Frank Act, the Bank Secrecy Act, FinCEN and Sarbanes-Oxley Act.**
- ❖ Conducted **GAP Analysis** to derive requirements for **AML surveillance system.**
- ❖ Organized and Conducted **the JAD team** and in conducting the weekly sessions from requirement gathering to sign-off of the application after testing.
- ❖ Developed a **vision plan** that defined Citigroup AML policies and procedures are primary goals of the project.
- ❖ **Elicited demands from the stakeholders** and analyzed them for consistency, completeness and flexibility.
- ❖ As a Scrum Master I **facilitated Scrum events** including **Backlog refinement, Sprint Planning, Stand up meeting, Sprint Review and Sprint Retrospective.**
- ❖ Participated in writing and prioritizing **user stories** in **Product Back Log** with Product Owner.
- ❖ As experienced **Scrum Master** anticipated and removed obstacles from project team's path and pushed them to deliver quality results based on schedule.
- ❖ Used **JIRA for issue tracking, user story management and requirement traceability.**
- ❖ Developed use case documentation for **system requirements and business process flows** using **MS Visio.**
- ❖ Responsible for identifying and documenting business rules and creating detailed diagrams including **Use Cases, Use Case diagrams, Business Flow diagram, Creating process models, Data flow diagrams.**
- ❖ Assisted in **User Acceptance Testing (UAT)**, developing and maintaining quality procedures, and ensure that appropriate documentation is in place. Assisted in **Black box, UAT and Regression testing.**
- ❖ Assisted in identifying documents needed to develop **Suspicious Activity Reports** as required by **Bank Secrecy Act** and **FINCEN** for generating reports and red flags to report **fraud, money laundering, patterns and inconsistencies** activities.

**ENVIRONMENT:** ERP, CRM, Scrum Agile, Tableau, MS Visio, MS Project, MS office, UML, SCRUM, Fraud management, Money Laundering, SQL, JIRA, Kanban, Tableau Desktop, IBM Cognos, MS Office Suite (MS word, MS Excel, PowerPoint), MS Project, Test Director, Rally, Sharepoint.

**OLX INDIA, Gurgaon, India**

**AUG 2011 – JUL 2012**

#### **BUSINESS ANALYST**

**SCOPE:** The project aimed to build a web-based system for its HR department to post vacancies, filter right candidates and manage the entire recruitment process. Some features of this system were storing Applicants data, conducting on-line tests, creating vacancies, Interview process initiation, Scheduling Interviews, storing Interview results etc.

#### **ROLES AND RESPONSIBILITIES**

- ❖ Interacted with the customers and internal stakeholders to gather user requirements and their expectations from the system to create **BRD, FRD** and **SRS.**
- ❖ Served as a **liaison** between HR department and the project team by assisting the business in identifying, the recruitment process and documenting their business needs.
- ❖ Attended **JAD sessions** for design and documentation of the System Design Document (SDD) and made sure that all the requirements were implemented into functionality.
- ❖ Assisted developers to create Conceptual **and Logical Data models** to help developers visualize the database schema.
- ❖ Used **SQL** queries like **SELECT, JOIN, VIEW** to retrieve data from SQL server.
- ❖ Assisted QA team to document **Test plans, Test cases and Test Scenarios** using MS Excel.
- ❖ Created **mock up screens** for the application which helped business users to give their feedback.

**ENVIRONMENT:** Waterfall, MS Office, Oracle and Java.

**SBI, Hyderabad, India**

**AUG 2010 – JULY 2011**

#### **BUSINESS SYSTEM ANALYST/JAVA DEVELOPER**

**SCOPE:** SBI Capital Market is amongst the oldest players in Indian Capital Markets, offering Investment Banking Services. The project was to build an Enterprise Reporting System to support Portfolio Management and performance analysis of credit card system.

#### **ROLES AND RESPONSIBILITIES**

- ❖ Worked with the Project Manager in defining the scope and requirements of the project.
- ❖ Facilitated meeting and arranged **JAD sessions** with business users for requirement gathering.
- ❖ Served as a **liaison** between business team and the project team by assisting the business in identifying, understanding and documenting their business needs.
- ❖ Assisted in gathering requirements for the **GUI (Graphical User Interface)** Screens and designing.

- ❖ Created use cases and designed use **case diagrams class, sequence diagrams** and **activity diagrams**.
- ❖ Responsible for preparing **Software Requirement Specifications (SRS)** and **Functional Requirement Specifications**.
- ❖ Designed **Java Servlets** and Objects using **J2EE** standards.
- ❖ Designed the project by using **MVC framework**.
- ❖ Developed the **XML schema** for the data maintenance and structures.
- ❖ Implemented **EJB** session beans, messaging technologies like Message Driven Bean, JMS.
- ❖ Used **JSP** for presentation layer, entity beans as the model to represent the persistent data and interacted with Oracle database as per MVC Architecture.
- ❖ Participated in design Implementation of GUI using **HTML, JSP, Tiles, Validator** and **Java Script** for front-end validations.
- ❖ Involved to develop **Multithreading** for improving CPU time.
- ❖ Used the **XML Parsers** like **SAX parser** to parse the data.
- ❖ Used **JDBC** calls in the **Enterprise Java Beans** to access Oracle Database.
- ❖ Involved in Integration testing and defects fixes.
- ❖ Conducted Project related **Presentations**.

**ENVIRONMENT:** Waterfall, MS Office, MS EXCEL, MS ACCESS, Load runner, windows 2000, clear case, UML, Core Java, J2EE, Servlets, Multithreading, JSP, Struts1.1, EJB, JMS, UML, rational Rose2000, MQ Series, WinCVS, Oracle 8i, Eclipse, WebLogic 8.1, HTML, JavaScript, JUnit, ANT, XML SAX, DOM, XSL.

**SBI, Hyderabad, India**

**AUG 2009 – AUG 2010**

### **Jr JAVA DEVELOPER**

**SCOPE:** SBI Capital Market is amongst the oldest players in Indian Capital Markets, offering Investment Banking Services. The project was to build an Enterprise Reporting System to support Portfolio Management and performance analysis of credit card system.

#### **ROLES AND RESPONSIBILITIES**

- ❖ Designed **Java Servlets** and Objects using **J2EE** standards.
- ❖ Designed the project by using **MVC framework**.
- ❖ Developed the **XML schema** for the data maintenance and structures.
- ❖ Implemented **EJB** session beans, messaging technologies like Message Driven Bean, JMS.
- ❖ Used **JSP** for presentation layer, entity beans as the model to represent the persistent data and interacted with Oracle database as per MVC Architecture.
- ❖ Participated in design Implementation of GUI using **HTML, JSP, Tiles, Validator** and **Java Script** for front-end validations.
- ❖ Involved to develop **Multithreading** for improving CPU time.
- ❖ Used the **XML Parsers** like **SAX parser** to parse the data.
- ❖ Used **JDBC** calls in the **Enterprise Java Beans** to access Oracle Database.
- ❖ Involved in Integration testing and defects fixes.

**ENVIRONMENT:** Core Java, J2EE, Servlets, Multithreading, JSP, Struts1.1, EJB, JMS, UML, Rational Rose2000, MQ Series, WinCVS, Oracle 8i, Eclipse, WebLogic 8.1, HTML, JavaScript, JUnit, ANT, XML SAX, DOM, XSL.