



Bandavya Virtual Assistant

By: Julie Johnson

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Committee Members: Dr. Arvin Agah (Chair)

Dr. John Gauch, Dr. Perry Alexander



Outline

- Motivation
- Problem and Solution
- BVA features
- BVA development process
- BVA design and implementation
- Sample screenshots
- Conclusion



Motivation

- Bandavya Welfare Society - BWS
 - Non-profit organization based in India
 - Provides financial support for education of poor children through sponsorship
 - Each child has an overseas sponsor family
 - Children are required to write various letters throughout the sponsorship to the sponsor
 - Sponsors pay for annual subscription and send money to their child/children through BWS.



Problem

- Currently, all work is done by hand by filing information in binders and shuffling papers between the staff and coordinator
- The number of children and sponsors have increased over the years
- Nearly impossible to manage all information by hand
- Difficult to coordinate effort between the staff in India and the coordinator who travels



Problem

- Difficult to search through piles of papers to look for particular information
- Difficult to manage the organization without additional help.
- Loss of valuable time and money for the organization.



Solution

- Bandavya Virtual Assistant – web based tool to manage the administrative work at BWS
- Allows the coordinator to manage BWS efforts from overseas
- Provides easy to use interface to manage children and sponsor information
- Provides quick reporting and search capabilities



Bandavya Virtual Assistant

- Stores following information:
 - Child Information
 - Child Family Information
 - Sponsor Information
 - Sponsor Family Information
 - Sponsor Letters
 - Child Letters
 - Sponsor Donation
 - Child Payments



Bandavya Virtual Assistant

- Reduce operational costs
- Sponsors can access information about their children and updates easily.
- Provides a way to communicate to all sponsors.



Bandavya Virtual Assistant

- Has three user interfaces
 - Administrator Interface
 - Staff Interface
 - Sponsor Interface



BVA - Features

- Child Information Management
 - Manage Child Details
 - Manage Child Family Details
 - Manage Child Letters
 - Manage Child Payments
 - View/Manage all Children



BVA - Features

- Sponsor Information Management
 - Manage Sponsor Details
 - Manage Sponsor Family Details
 - Manage Sponsor Letters
 - Manage Sponsor Donations
 - List all Sponsor Donations
 - List all Sponsor Letters
 - View/Manage all Sponsors
 - List of Sponsors with no sponsored child



BVA - Features

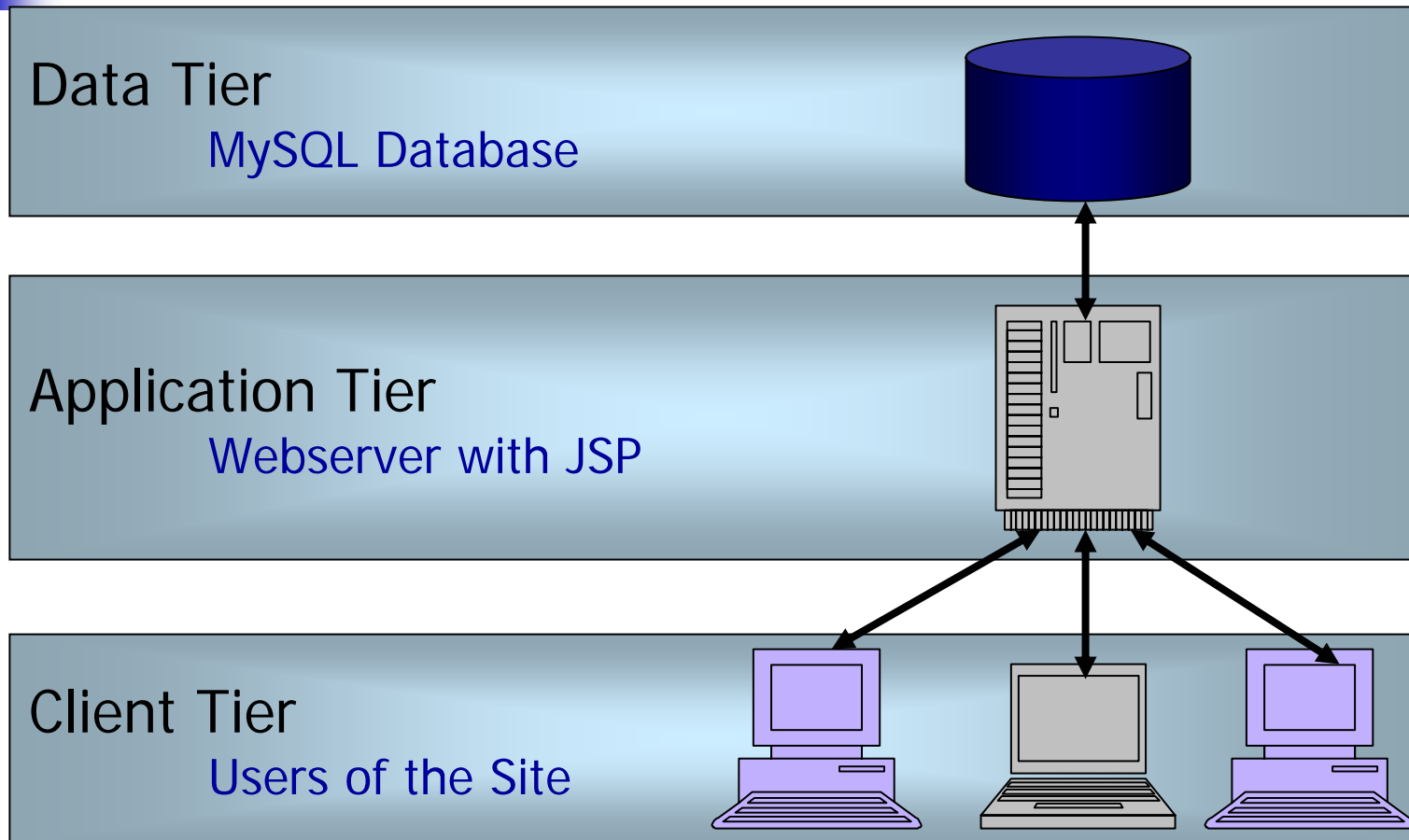
- User authentication
- Manage user accounts
- Change/reset passwords
- Search children/sponsors
- List of pending reply letters
- List of pending yearly letters
- List of latest letters by children
- List of recent sponsor annual subscription



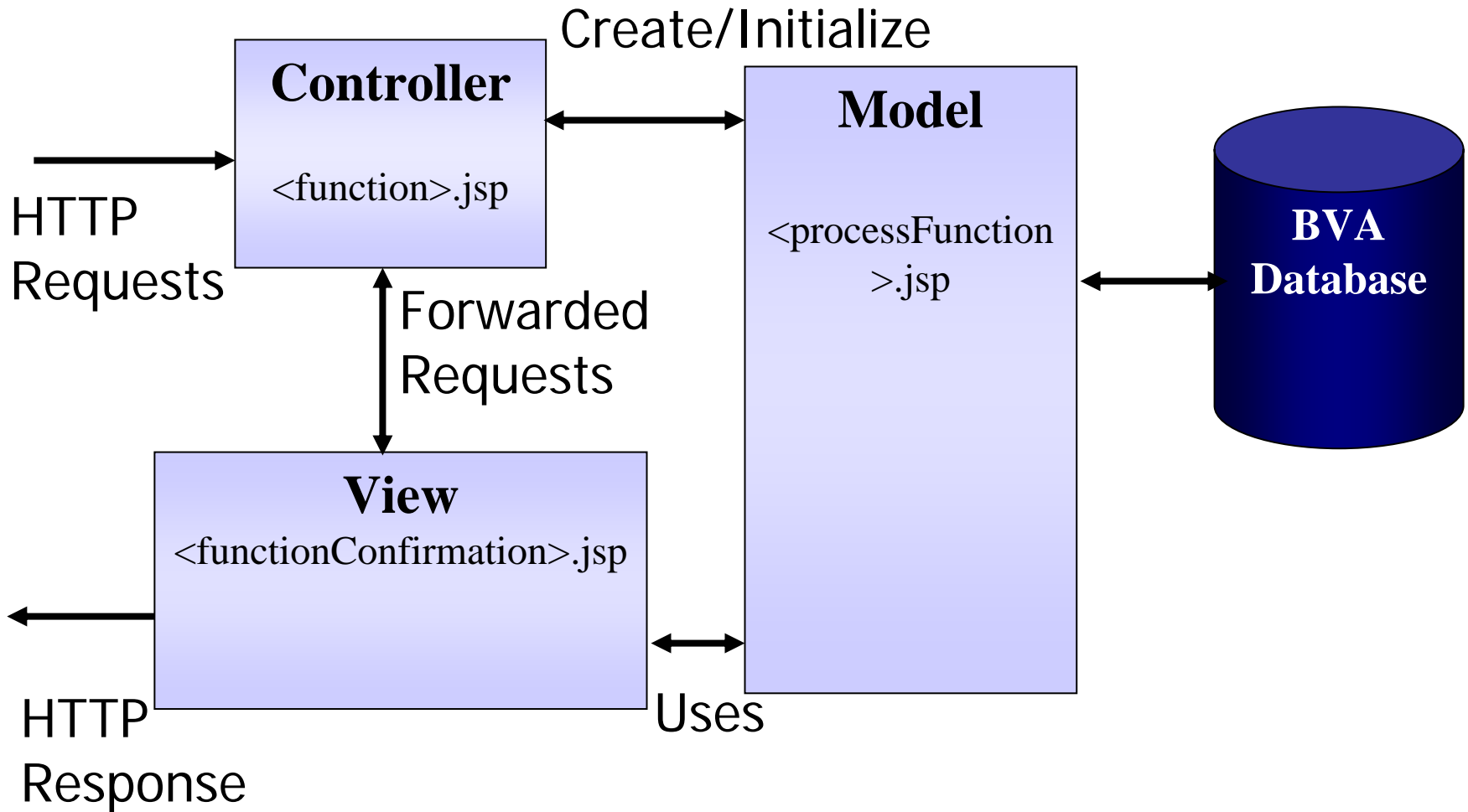
Technology Used

- MySQL database
- Apache Tomcat Server
- JSP
- Html
- Javascript
- SQL

Three-tier Architecture



MVC Design Pattern

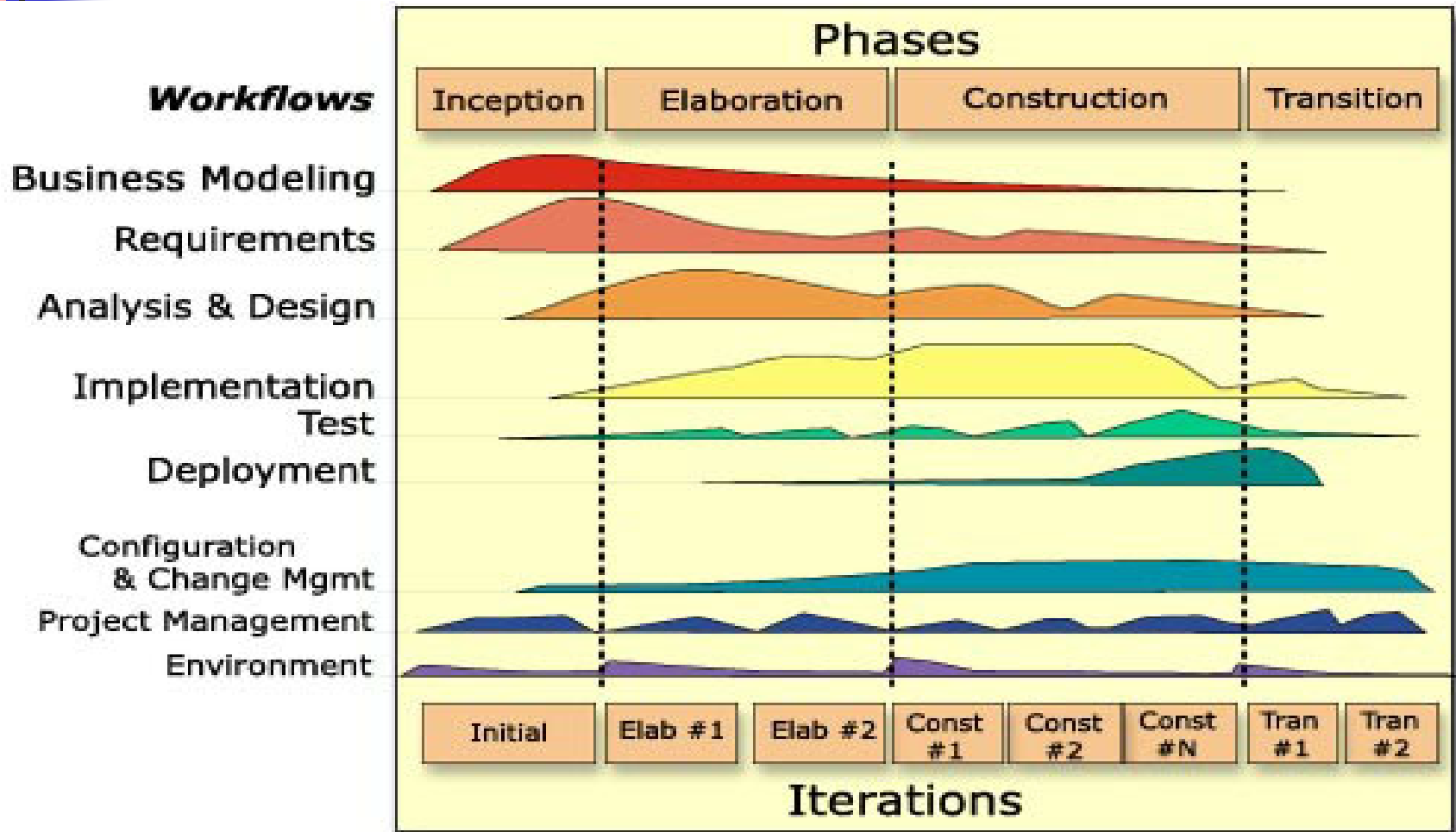




Development Process

- Rational Unified Process
 - Iterative development
 - Allows incremental development
 - Easy to incorporate change and feedback
 - 4 Phases
 - Inception – vision and feasibility
 - Elaboration – iterative implementation of core architecture, identification of most requirements
 - Construction – iterative implementation
 - Transition - deployment

Rational Unified Process





Iteration I - Inception

- Feasibility of the project was assessed
- Meetings with the client – elicit requirements
- Identified resources
- Artifacts initiated and created
 - Software Project Management Plan
 - Software Vision and Scope Document
 - Software Requirements Specification



Iteration II - Elaboration

- Development environment was set up
- Completed requirements elicitation
- Developed architecture
- Use of design pattern
- Implementation of major features
- Artifacts initiated and created
 - Software Requirements Specification
 - Data Model



Iteration III - Construction

- Implementation of remaining features
- Initiated testing
- Artifacts initiated and completed
 - Implementation code



Iteration IV - Construction

- Complete testing of all features
- Heavy changes and modification implementation
- Artifacts
 - Implementation code
 - User documentation



Screen Shots

- Add sponsor
- Sponsor details
- Reports
 - All Sponsors and children listing
 - Available sponsors for new children
 - List of children's latest letters

Add Sponsor

Sponsorship Information

Sponsor Login Id: <input type="text"/>	* Group Name: <input type="text"/>
* Date of Sponsorship: DD <input type="text" value="00"/> MM <input type="text" value="00"/> YYYY <input type="text" value="0000"/>	Date of Withdrawal: DD <input type="text" value="00"/> MM <input type="text" value="00"/> YYYY <input type="text" value="0000"/>

Sponsor Profile

* Sponsor Name: <input type="text"/>	* Gender: <input type="radio"/> M <input checked="" type="radio"/> F
Date of Birth: DD <input type="text" value="00"/> MM <input type="text" value="00"/> YYYY <input type="text" value="0000"/>	* Profession: <input type="text" value="Doctor"/>
Sponsor Language: <input type="text" value="Kannada"/>	* Marital Status: <input type="text"/>

Contact Information

* Sponsor Address: <input type="text"/>	Home Phone: <input type="text"/>
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All Sponsors and Children Listing

Sponsor Id	Sponsor Name	Group Name	Child Id	Child Name
1	Condor Chou	los angeles	A-1	geetha
2	Melanie Smith	None	A-2	<u>Meghna Varya</u>
3	Elizabeth Hannah	Tuscany	None	<u>None</u>
4	Jenna Hennington	Kansas-USA	None	<u>None</u>
14	Silvana Jacobs	USA	None	<u>None</u>
17	Ana Marie Fernandez	Italy	None	<u>None</u>

6 sponsors listed

Created by Julie Johnson

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media AutoFill Options

Address <http://localhost:8080/listSponsorsWithNoChild.jsp> Links >>

Google Search Web 1633 blocked



Available sponsors for new Child

Sponsor Id	Sponsor Name
3	Elizabeth Hannah
4	Jenna Hennington
14	Silvana Jacobs
17	Ana Marie Fernandez

4 sponsor with no children listed

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List of Children's Latest Letters

Child Id	Child Name	Received Date	Letter Type	Highlights
A-1	geetha	<u>05-05-1999</u>	Birthday Greetings	birthday wishes
<u>A-2</u>	<u>Meghna Varya</u>	<u>10-06-2001</u>	Easter Greetings	Easter traditions, current event and about family

2 last letters of children listed

Created by Julie Johnson



Conclusion

- Lessons learned
 - International differences
 - Date format
 - Naming format
 - Required fields
 - Development process
- Limitations
 - Fields are not sorted
 - Report view customization not implemented



Future Work

- Make annual donations online
- Generate printer-friendly letters given templates
- Ability for new unsubscribing users to be able to find children to sponsor



Conclusion

- Thank you
- Questions? Comments?