

MICHIGAN STATE
UNIVERSITY

Project Plan

Mobile Approver

The Capstone Experience

Team Ford

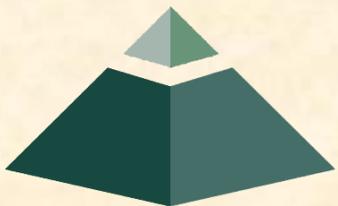
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*From Students...
...to Professionals*

Project Overview

- Mobile Java web application
- Used by managers to approve / reject requests
 - E.g. Purchasing, Travel, Parts etc...
- Interface multiple data sources
- Native QR code scanning of products
- Streamline job duties of supervisors



Functional Specifications

- Unified interface
- Aggregator of request systems
- QR scanning embedded.
- Cross-platform mobile support

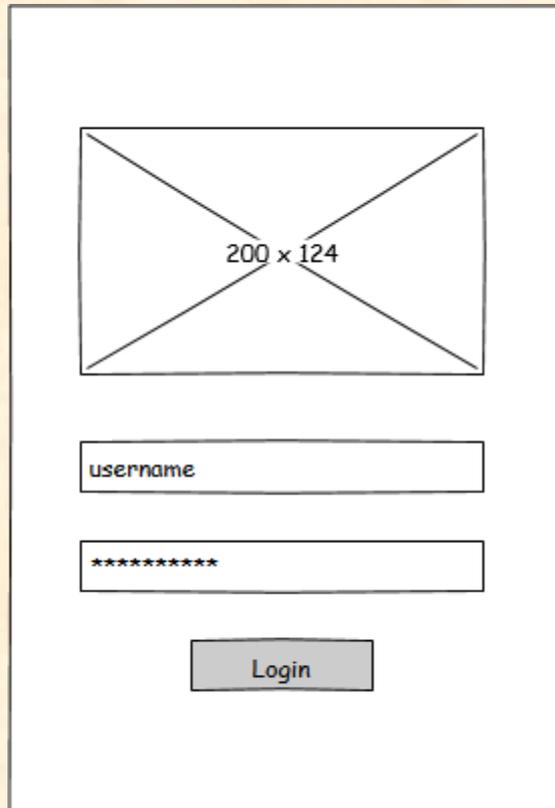


Design Specifications

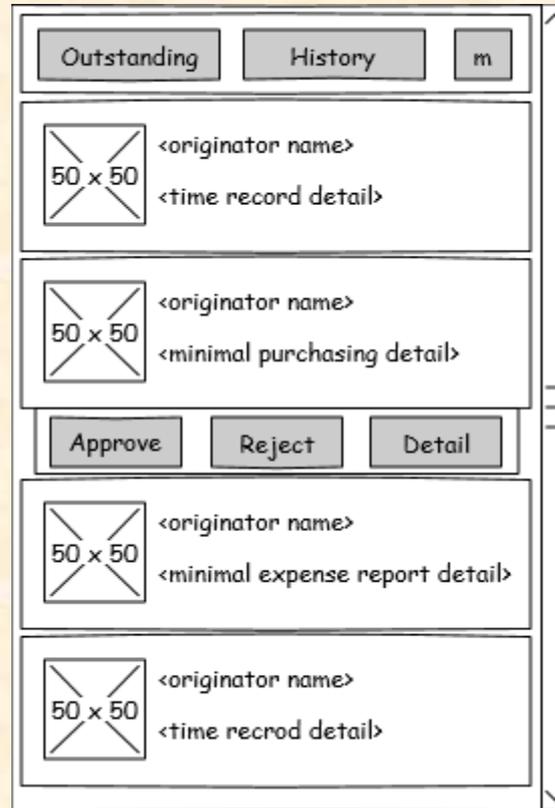
- Supervisors will use the application to approve or reject request, view request details, and scan QR codes
- System administrators will use the system to review logs and verify correct operation of the system
- External systems will interact with the system by providing request data and receiving responses



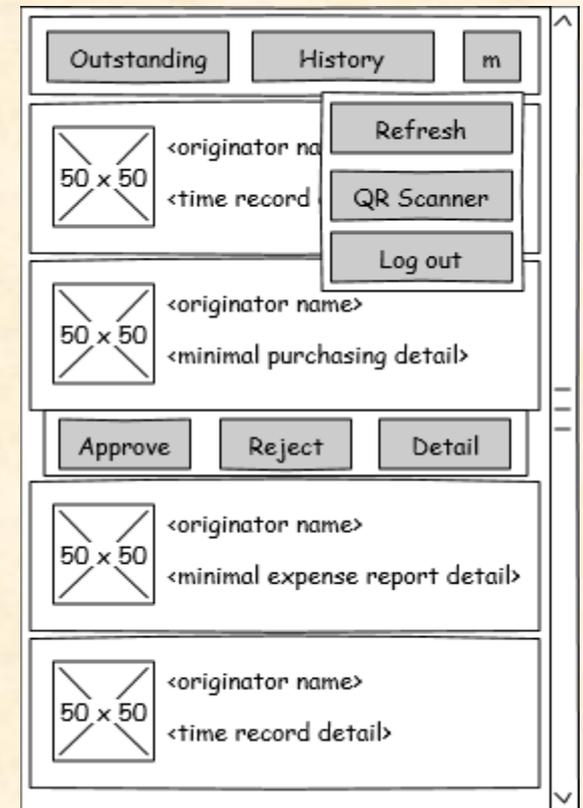
Screen Mockup: Mobile Approver



A login screen mockup featuring a large placeholder box with a diagonal cross and the text "200 x 124". Below this are two input fields: the first is labeled "username" and the second contains a series of asterisks "*****". A "Login" button is positioned at the bottom center.



A mobile app screen mockup for an approver. At the top, there are three buttons: "Outstanding", "History", and "m". The screen displays a list of four items, each with a 50 x 50 placeholder icon and text: "
<originator name>
<time record detail>
<originator name>
<minimal purchasing detail>
<originator name>
<minimal expense report detail>
<originator name>
<time record detail>



A mobile app screen mockup for an approver, similar to the left one but with a floating menu. The menu contains three buttons: "Refresh", "QR Scanner", and "Log out". The list of items below is identical to the left mockup, with text: "
<originator name>
<time record detail>
<originator name>
<minimal purchasing detail>
<originator name>
<minimal expense report detail>
<originator name>
<time record detail>



Screen Mockup: Mobile Approver

Outstanding History m

50 x 50 <originator name>
<time record detail>

Comments

Submit Cancel

50 x 50 <minimal expense report detail>

50 x 50 <originator name>
<time record detail>

Outstanding History m

50 x 50 <originator name>
<time record detail>

Data source specific text

Approve Reject Detail

Outstanding History m

50 x 50 <originator name>
<time record detail>

Comments

Submit Cancel

Approve Reject Detail

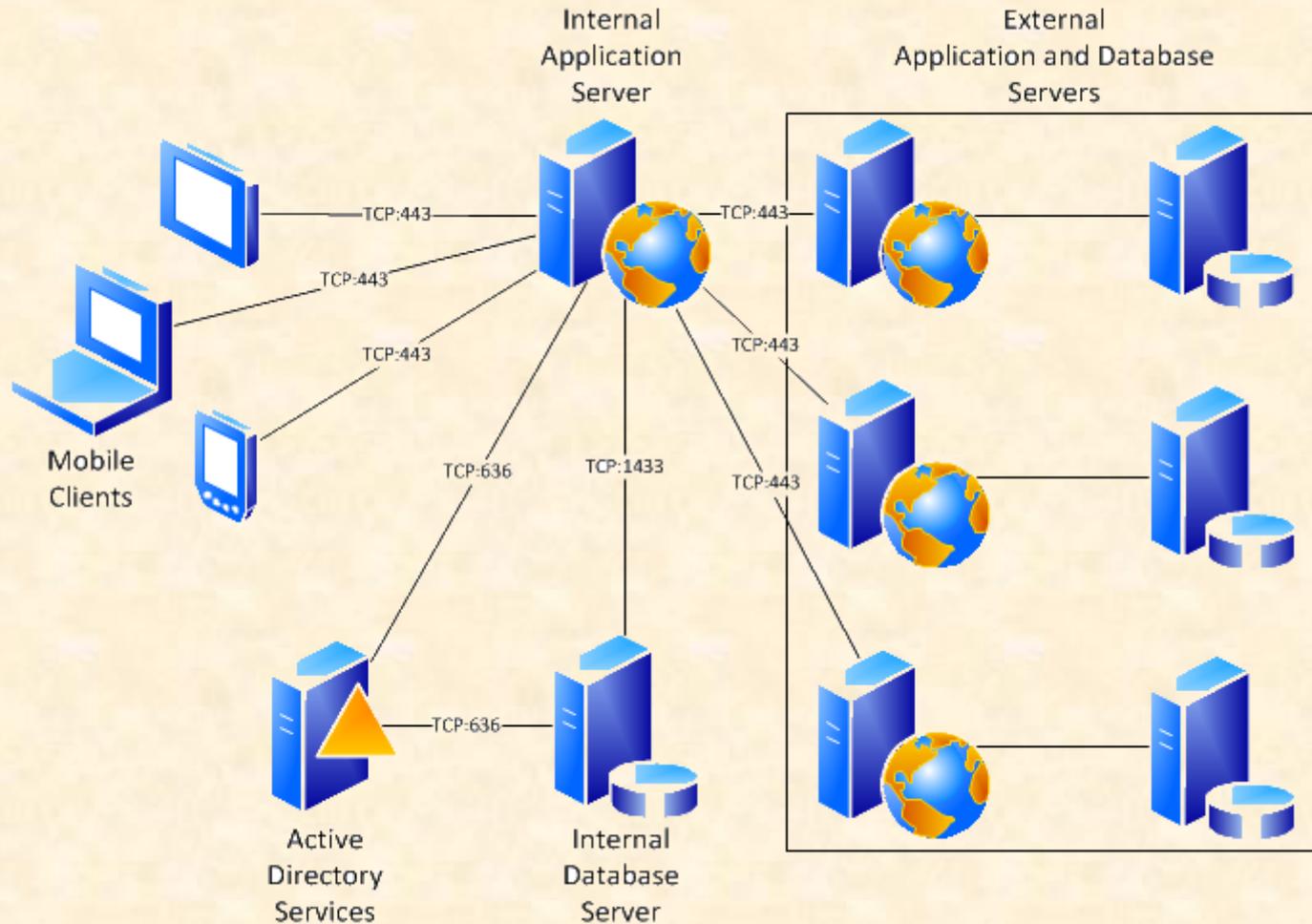


Technical Specifications

- Core Application Components
 - Java, PrimeFaces, Spring MVC, HTML5, JS, CSS
- Supporting Technology
 - Active Directory, SQL Server, WebSphere
- Others
 - SharePoint



System Architecture



System Components

- Hardware Platforms
 - Server provided by CSE
 - Testing with all devices we can find
- Software Platforms / Technologies
 - VMWare ESX
 - Windows Server 2008 R2
 - SQL Server 2008 R2
 - WebSphere
 - Spring MVC



Testing

- SharePoint for mock workflows and data
- Exhaustively test requests / types
- Use as many different devices as possible
- 3rd party page validation
- Client involvement!



Risks

- Data
 - No real data, no real interfaces
 - Mitigating with mock data / API via SharePoint
- SharePoint
 - Uncharted territory, potentially complicated product
 - Mitigate with an early focus – Already have some wins
- QR Codes
 - Key application feature, disjoint source material
 - Early focus – Already have some wins
- Spring MVC
 - Team is unfamiliar with MVC and Spring
 - Strong week 4 focus

