The Capstone Experience

Team Dow

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Project Overview

• Create a reusable SharePoint Approval Workflow
• Device Agnostic
• Applied to Dow’s Spending Delegation of Authority Process
• Flows through approvers from lowest level to highest level until approved or disapproved
Functional Specifications

• Must have defined roles for Administrators, Requesters, and Approvers, with appropriate capabilities for each given role

• Administrators configure the workflow. They have the privilege to view all active and past requests. Also, they can generate reports for a workflow.

• Requesters can submit a request for funds. They can also see any active or past request that they submitted.

• Approvers can see any request that they have been assigned to approve, including the complete history of the request.
Functional Specifications

Business Approval System

- Configure Workflow
- Review Request
- Comment
- Approve/Disapprove Request
- Generate Reports
- Submit Request
- Login/Logout
- View Existing Requests
- View Past Requests
- Administrator
- Approver
- Requester
Design Specifications

- Each role is modeled as an object
- Workflows and Workflow Requests are modeled as objects
- Each organization within the company is modeled as an object
- Approval process is modeled as a state diagram, starting with initial request and ending with approval or disapproval
Design Specifications

Object Model for Workflows and their Interactions
Design Specifications

State Diagram

- Created
  - Submit for Approval
  - Approve Request [Further approval required]
    - Awaiting Approval
      - Approve Request [Final approval]
      - Deny Request
        - Approved
        - Denied
Screen Mockups

Mobile Site

Business Approval System

Documents
Lists
Discussions
Sites

Team Dow Site::Workflow Initiation Form

Business Function
Performance Systems

Category
Automotive Systems

Initial Approver
Martin Brennan

Submit
Screen Mockups
Technical Specifications

• Must use the standard SharePoint security groups
• Must be deployable as a SharePoint Farm Level solution
• Must be able to attach any SharePoint list or document library
System Architecture

- Workstation
- iPad/BlackBerry Playbook
- Laptop
- iPhone/BlackBerry
- SharePoint Workflow Webpage
- Server
- Microsoft SharePoint Server 2010
- Microsoft SQL Server 2008
- Microsoft Server 2008
- Data
System Components

• Hardware Platforms
  ▪ iPad/iPhone
  ▪ BlackBerry
  ▪ PC or Laptop

• Software Platforms / Technologies
  ▪ Visual Studio 2010
  ▪ SharePoint 2010
  ▪ Windows Server 2008 R2
  ▪ SQL Server 2008
Testing

• Iterative Development with weekly progress submitted to client
• Weekly acceptance testing to ensure new features work as intended and do not conflict with or break existing features
Risks

- No one on the team has previous experience with C#
- No one on the team has previous experience with SharePoint
- Mobile browsers do not offer the full feature set that standard browsers receive when working with SharePoint, which may limit some end users capabilities