

**MICHIGAN STATE**  
**UNIVERSITY**

# Project Plan

## Business Approval System

The Capstone Experience

Team Dow

Joe Amenta  
John Furcean  
Joe Langford

Department of Computer Science and Engineering  
Michigan State University

Spring 2011



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

# 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

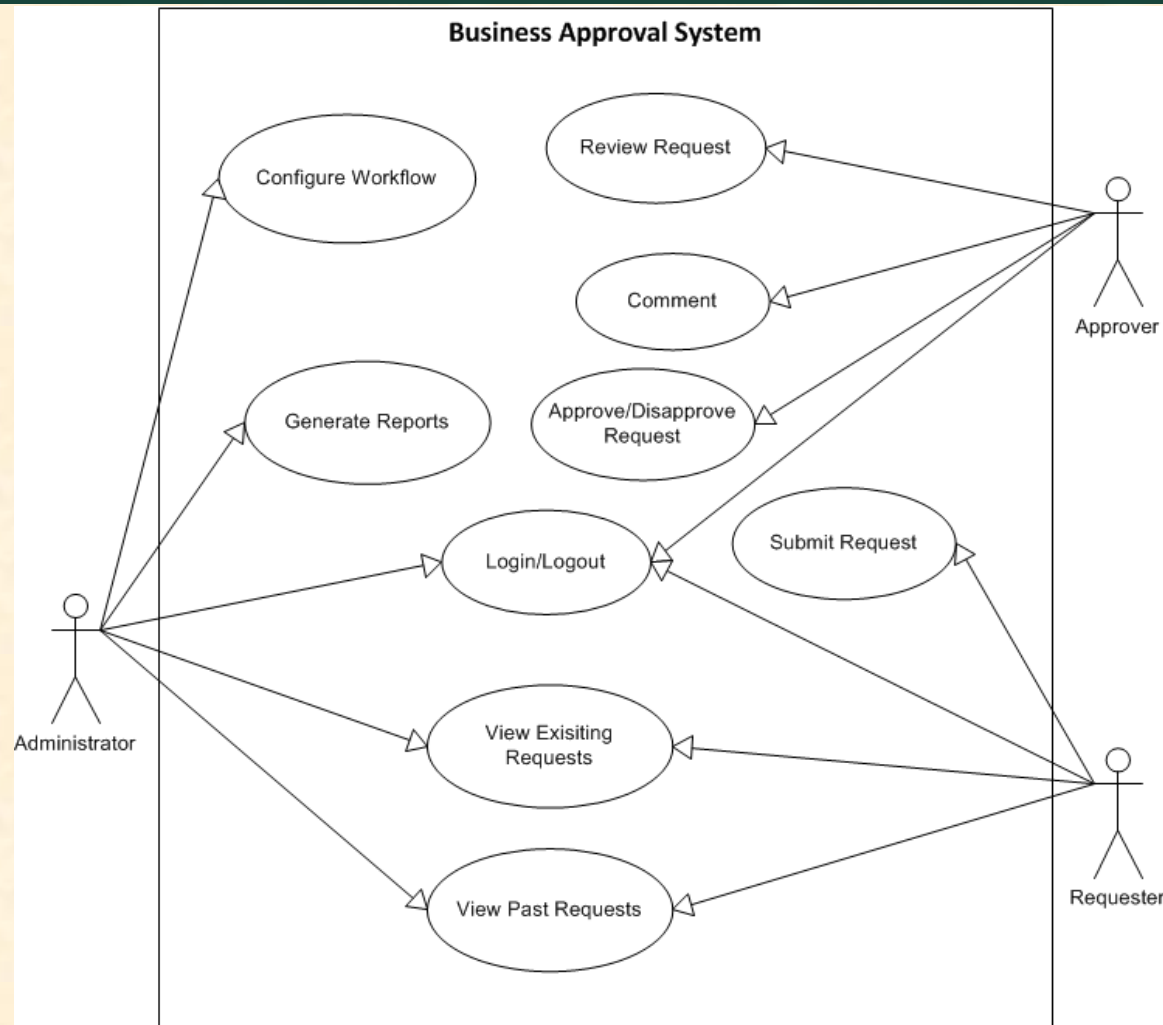


# Functional Specifications

- 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



# Design Specifications

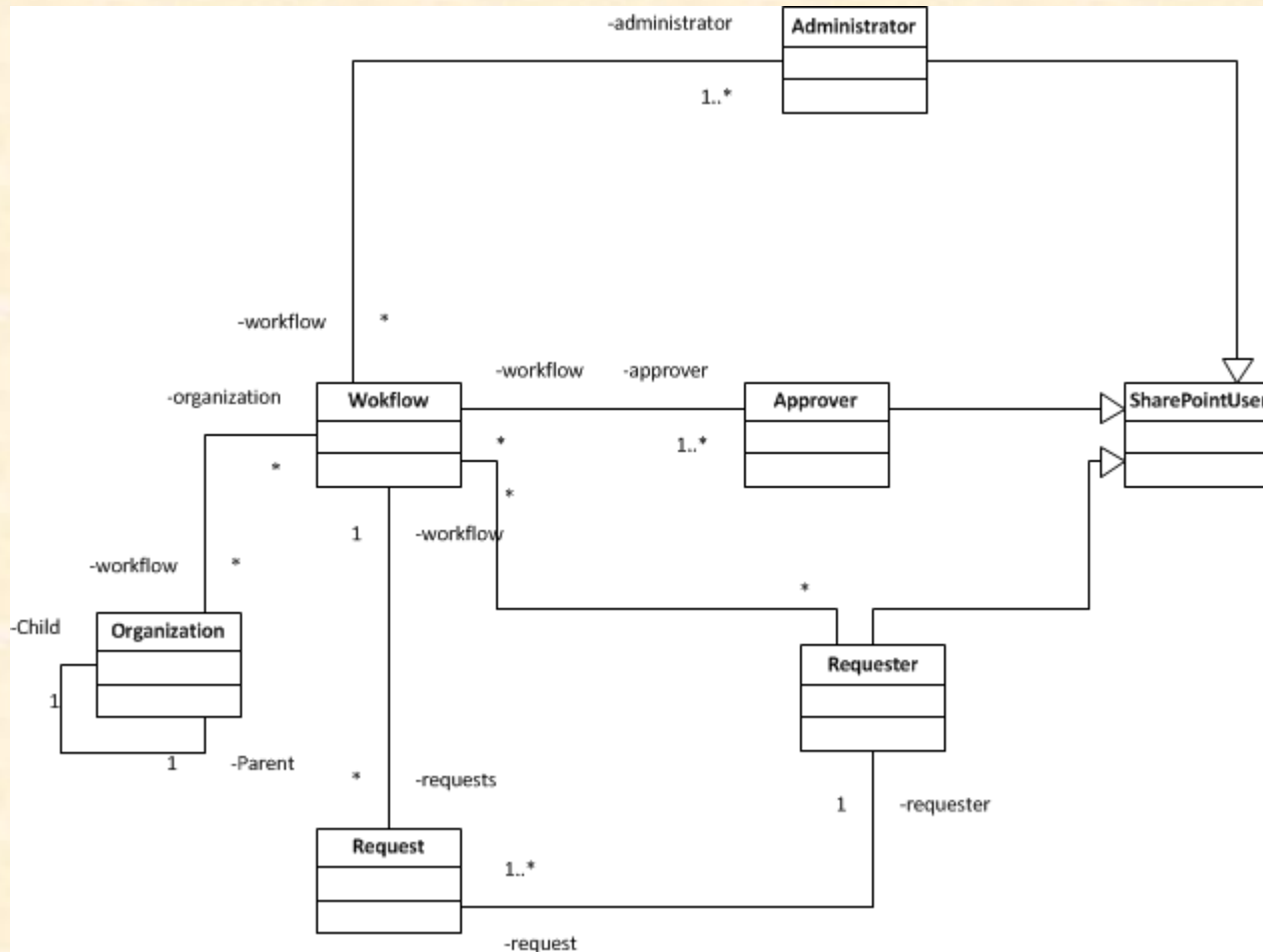
---

- 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



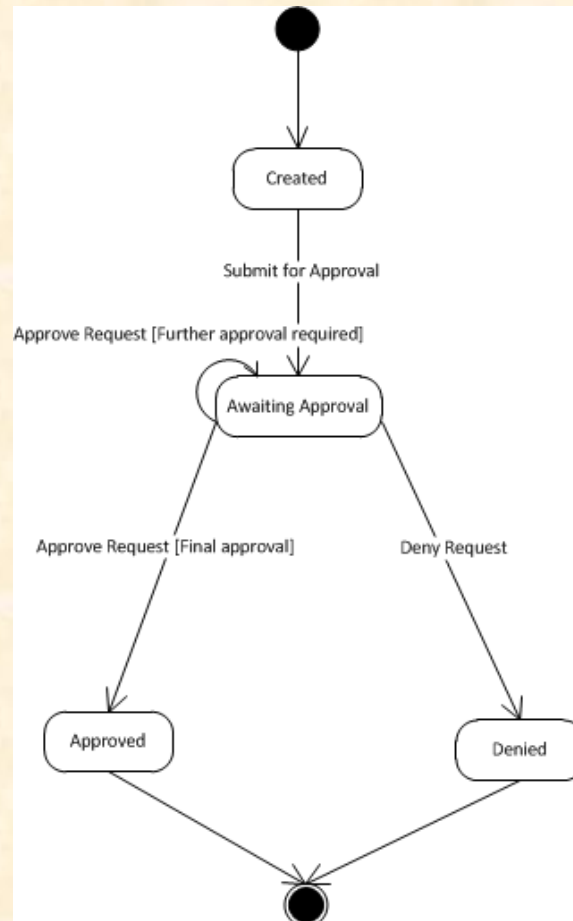
# Design Specifications

## Object Model for Workflows and their Interactions



# Design Specifications

State Diagram



# 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

Team Dow\requestor

Team Dow Site::Workflow Initiation Form::Business Approval System

	Business Function	Category	Initial Approver
Documents	Performance Systems ▼	Automotive Systems ▼	Martin Brennan ▼
Lists	Submit Request		
Discussions			
Sites			



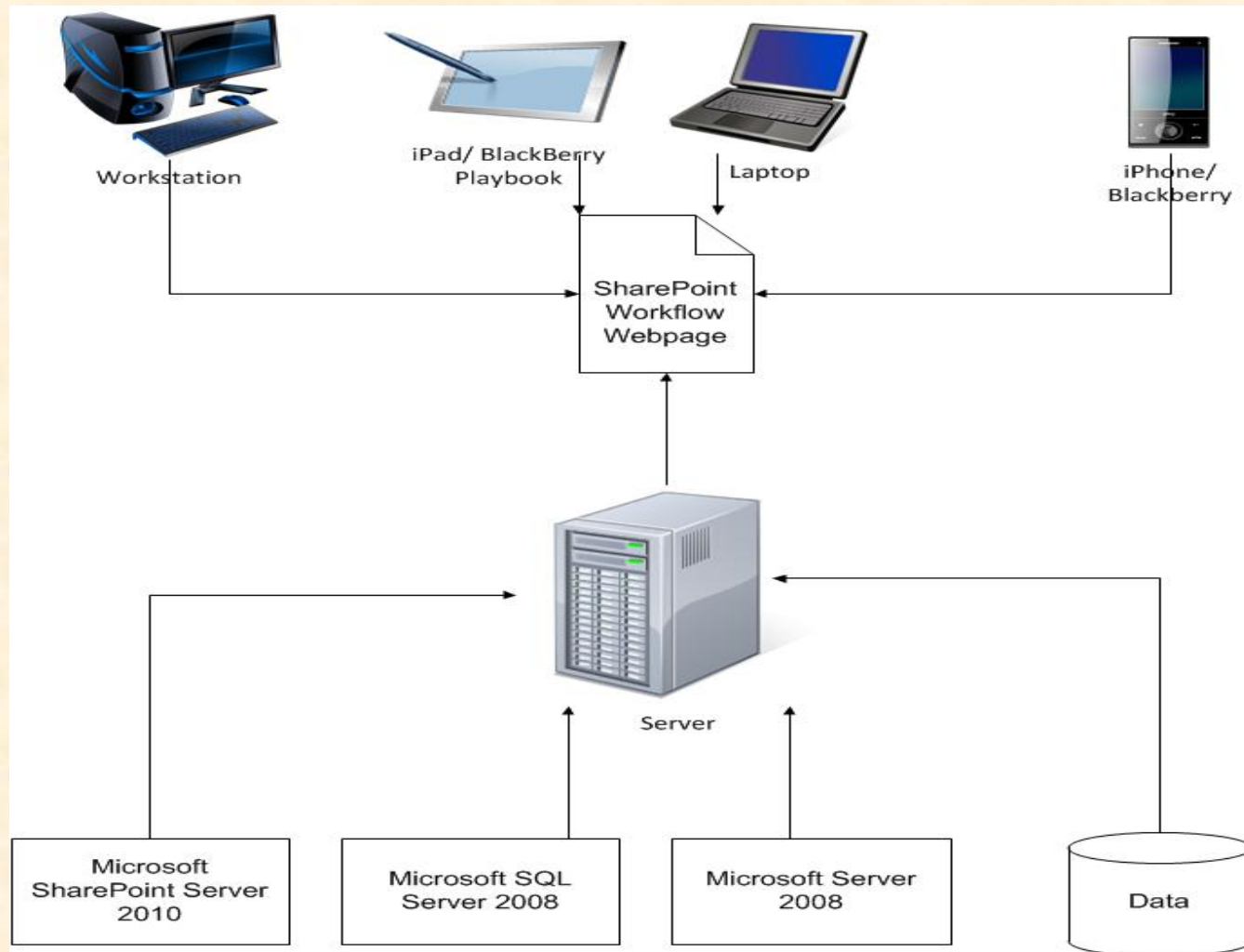
# Technical Specifications

---

- 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



# 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

