Vision

Introduction

We envision a next generation educational social network site for NKU students, NKUNet, so that students can share vast knowledge and resources with each other. This educational social network aims to break down barriers by creating forums in which students can participate and seek guidance regarding their courses from not only their peers but also faculty members alike.

Position

Problem Statement

Even though traditional social educational services such as Blackboard can benefit students by means of facilitated communication, many obvious barriers still exist that deter students from receiving the proper personalized guidance for their specific courses. For instance, these services typically don't allow for a great collaborative and innovative space. This mainly results from the restriction in contact capabilities for the students, which is limited to their peers in the same section and the professor that instructs it. Email and feature-lacking forums are the main communication drivers in these social networks. Consequently, there is an obvious lack of interactivity, which, in turn, hampers discussions amongst the students and faculty.

Product Position Statement

NKUNet aims to solve the interactivity problem and promote collaboration between all students and faculty at Northern Kentucky University. As stated, the existing alternative/competitor, Blackboard, addresses communication amongst the students in the same section of a specific course. This restricts the knowledge that could be passed between students in different sections of the same course as well as students who had taken the course in the past. NKUNet will target this obstacle directly and allow all students, past and present, along with faculty, to provide guidance to those in need.

Students will be able post a question relating to the course material and be able to receive feedback from their peers and faculty in a forum-based manner. To encourage participation amongst users, students and faculty will have the ability to upvote or downvote answers to the question at hand. Based on the ratio of these votes, certain answers will be deemed the perceived community solution. The accumulation of upvotes and downvotes for a certain user reflects their "reputation" and will act as a proper indicator of the user's credibility whenever they submit a solution to the posted question. The reputation and voting system stimulates participation as well as gives the student posting the question a sense of direction when determining the correct solution. This ability to vote on answers provides a heightened sense of interactivity not present in existing solutions.

Stakeholder Descriptions

Stakeholder (Non-user) Summary

Name	Description	Responsibilities
Requirements Engineers	Works with customers and stakeholders to translate needs into requirements	Specifies domain, non-functional, and functional requirements. Refines requirements as needed.
Software Architects	Primary lead in the development of the application	Defines overall architecture of the system, and guides design and implementation of the system
Project Manager	Leads development of the application	Manages resources, decides priorities, coordinates interactions with customers/users, keeps team focused on end goal.
University	Main client for deployment of system	Distribute application amongst students and faculty and assign registrars and administrators.

User Summary

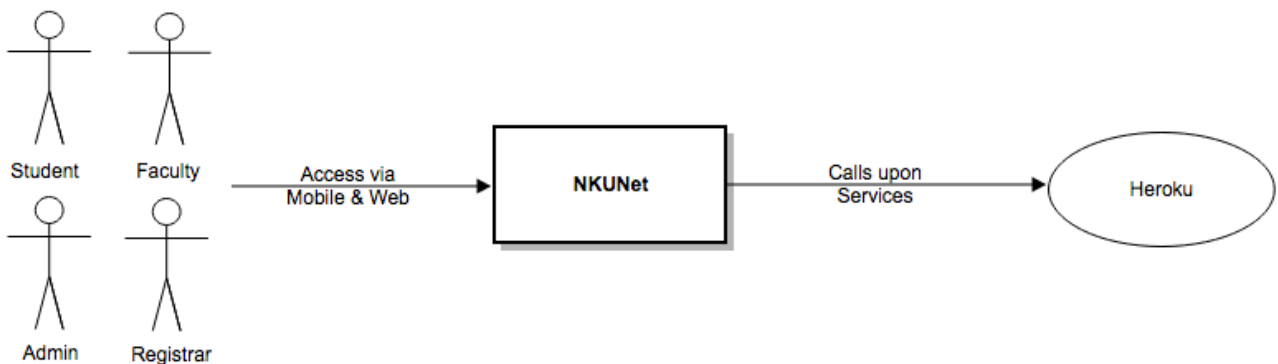| Name	Description	Responsibilities
Students	Primary end user of the system	Uses application to post/answer questions and vote, communicate with peers and faculty, and upload files (diagrams/tutorials) to their profile.
Faculty	End user of the system	Uses application to answer student questions and vote on answers and upload files to profile in the same manner as students.
Administrators	End user of the system	Uses application to add, edit, and delete forms as well as edit/delete questions and answers. Have permission to registrar functions to test the system.
Registrars	End user of the system	Uses application to add users and schedules/enrollment each semester and test the system.

User-Level Goals

- Students – post and answer questions and upload educational material to profile
- Faculty – answer questions and upload educational material to profile
- Administrators – modify forms, questions and answers, and test system functionality
- Registrars – add users, class schedules and enrollment each semester, tests the system functionality

Product Overview

The project is to create NKUNet, an educational social network site for NKU students. This site will be designed so that students can share knowledge and resources with each other. NKUNet aims to break down communication barriers present with the existing Blackboard solution by creating forums in which all students and faculty can participate.

Each user (student or faculty) will have a page of their own, which will display their current schedule and information about their reputation, such as number of upvotes, downvotes, and number of questions answered. The user page will also provide links to recently answered questions and provide the ability to upload educational resources, such as tutorials or diagrams, to share with other users.

Product Perspective

Summary of Benefits

Supporting Feature	Stakeholder Benefit
Post questions and answers	Provide students and faculty the ability to communicate and share ideas
Lists of time-stamped questions	Automated time-stamping to allow users to check recent activity/relevancy
Voted answers	Perceive credibility of answer deemed by community
Course pages	Organize forum questions by course, view instructors and student enrollment information
Permissions	Users will only have the specific permissions that they need
User profiles	View reputation information and uploaded educational materials

Summary of System Features

- Can post questions
- Provide answers to questions
- Students and Faculty can upvote or downvote answers
- User Reputation
- Show a list of questions
- Timestamped questions
- Current schedule
- Recently answered questions
- Link to class pages
- Upload educational resources
- Supports different languages

Other Requirements and Constraints

Security

All usage requires user authentication.

Usability

The user will be able to see a monitor or mobile display of the forum. Therefore:

- Avoid colors associated with common forms of color blindness
- Page is capable of being magnified for users with bad eyesight

Implementation Constraints

Solution will utilize Ruby on Rails deployed to production with Heroku, improving portability and supportability, in addition to the aspect of rapid software development.

Non-functional requirements

Language, accessing the site, 24/7 availability