

# SCAR

SIENA COLLEGE ACCURATE  
REGISTRATION

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DETAILED

DESIGN

MARCH 6, 2013

# Welcome

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**Mr. Michael Papadopoulos**

Assistant Vice President of Student Affairs

Director of Public Safety

Siena College

# Agenda

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- **Introduction**
- Restatement of Problem
- Current Stage of Development
- User Case Narratives
- Requirements Inventory
- Testing
- Database Design
- Live Prototype Demo
- Upcoming Stages of Development

# Introduction

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**Hans Hansen**  
Team leader

**Patrick Decker**  
Project Manager



**David Scirto**  
Lead Programmer

**Donovan Jackson**  
Data Analyst

# Agenda

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- **Restatement of Problem**
- Current Stage of Development
- User Case Narratives
- Requirements Inventory
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# Restatement of Problem

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- Too much manual input
- No secure way to guarantee accurate input
- Does not support repeated guests
- Form is susceptible to forgery
- No easy way to search current guests

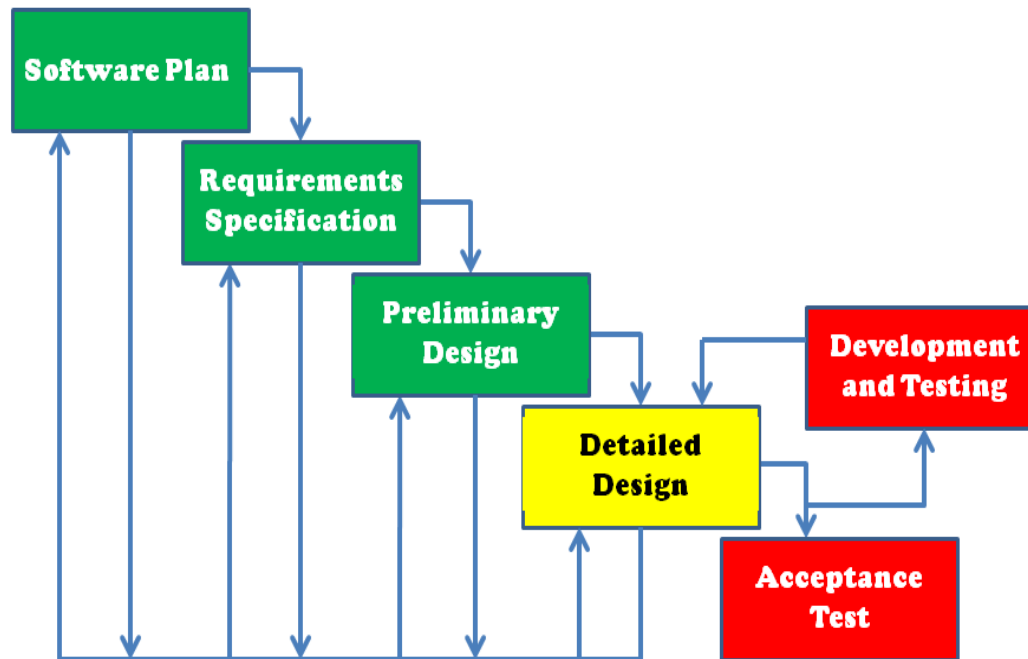
# Agenda

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- **Current Stage of Development**
- User Case Narratives
- Requirements Inventory
- Testing
- Database Design
- Live Prototype Demo
- Upcoming Stages of Development

# Current Stage of Development

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# Agenda

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- **User Case Narratives**
- Requirements Inventory
- Testing
- Database Design
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# User Case Narratives

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- A narrative about the abilities of each user
- Gives a detailed description of how each user can interact with the system

# Administrator User Case Narrative

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- Administrator
  - Log In/Log Out
    - ✦ Using Username and Password
  - Ability to query database
  - Ability to place or remove bans on students and guests
  - Ability to shut down/ turn on guest registration
  - Ability to edit maximum number of guests
  - Ability to create new accounts

# Public Safety User Case Narratives

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- **Public Safety**
  - Log In/Log Out
    - ✦ Using Username and Password
  - Ability to query database
  - Ability to make notes on students
  - Receive notifications

# Student User Case Narratives

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- Student
  - Log In/ Log Out
    - ✦ Using Username, Password, and SID Number
  - Ability to register guest
  - Ability to look up previously registered guests
  - Receive confirmation email

# Guest User Case Narratives

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- **Guest**
  - Ability to swipe driver's license to populate online form
  - Receive confirmation email
  - Receives printout for registration confirmation
  - Can printout a temporary parking permit

# Overnight Host User Case Narratives

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- **Overnight Host**
  - Receive confirmation
  - Ability to deny or accept appointment as overnight host

# Agenda

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- **Requirements Inventory**
- Testing
- Database Design
- Live Prototype Demo
- Upcoming Stages of Development



# Functional Requirements for SCAR

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- Useable on all major browsers
- Secure
- Data must be archived upon the end of each year
- Online form has requirements so that it must be completed
- Printouts must be readable
- Abides by Siena Life (Page 53 – 55 of the 2012-2013 issue)

# Non-Functional Requirements

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- Efficient
- Student Friendly
- Intuitive to use for Public Safety
- Easily Maintained
- Aesthetically Pleasing

# Agenda

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- **Testing**
- Database Design
- Live Prototype Demo
- Upcoming Stages of Development

# Overview and Strategy

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- All requirements will be tested
- All processes will be tested through Unit Tests
- Testing on students and public safety
- Tested on all major web browsers

# Testing Plan

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- Test Cases
  - Unit Tests
- Integration Tests
- System Test
- Acceptance Test

# Test Cases

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- Set of conditions to determine functionality
- Unit tests will determine if a process meets all functional requirements

# Student Authenticate Unit Test

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## Unit Tests

# Acceptance Test

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- Unit tests will determine acceptance of each process
- Acceptance criteria is met once all requirements are met
- Students and public safety will help to test non-functional requirements



# Agenda

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- **Database Design**
- Live Prototype Demo
- Upcoming Stages of Development

# Database Design

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- **Tables:**
  - Admin Accounts
  - Public Safety Accounts
  - Registration Settings
  - Registers
  - Students
  - Guests
  - Vehicle

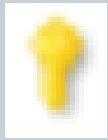
# Logical Data Dictionary

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Data Name	Applicable to	Data Type	Data Size	Description	Acceptable Input	Good Examples of Input	Bad Examples of Input	Notes	Table
vehColor	Register/Search	Varchar	1-15 Chars	Guest's Vehicle Color	A-Z, a-z, SPACE	Light Blue, Red	Red 6, **^g!		Vehicle
vehLicense	Register/Search	Varchar	1-12 Chars	Guest's Vehicle Licence Plate	A-Z, a-z, SPACE, 0-9	HKJ1347	4@t3rz!		Vehicle
vehMake	Register/Search	Varchar	1-25 Chars	Guest's Vehicle Make	A-Z, a-z, SPACE, -, '	Honda, Toyota	vt68		Vehicle
vehModel	Register/Search	Varchar	1-25 Chars	Guest's Vehicle Model	ASCII 32-126	Accord, Camry	Godzilla		Vehicle
vehState	Register/Search	Varchar	8-15 Chars	Guest's Vehicle State	A-Z, a-z, SPACE	New York	h4lll()		Vehicle

# Database Design Table Legend

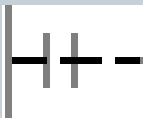
28



Primary Key

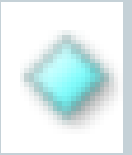


'Many' Cardinality



'Singular' Cardinality

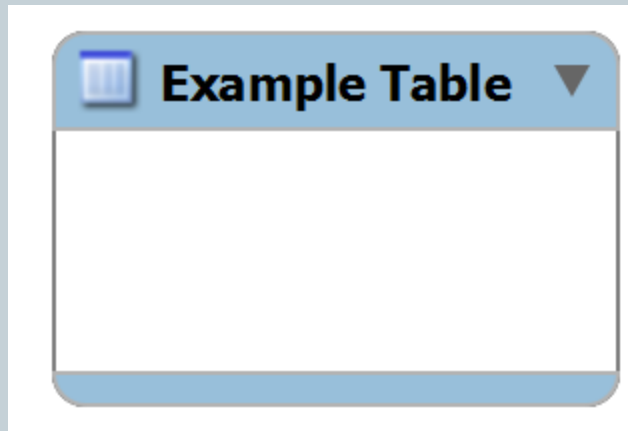
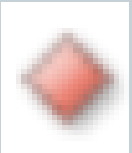
Not Null Attribute



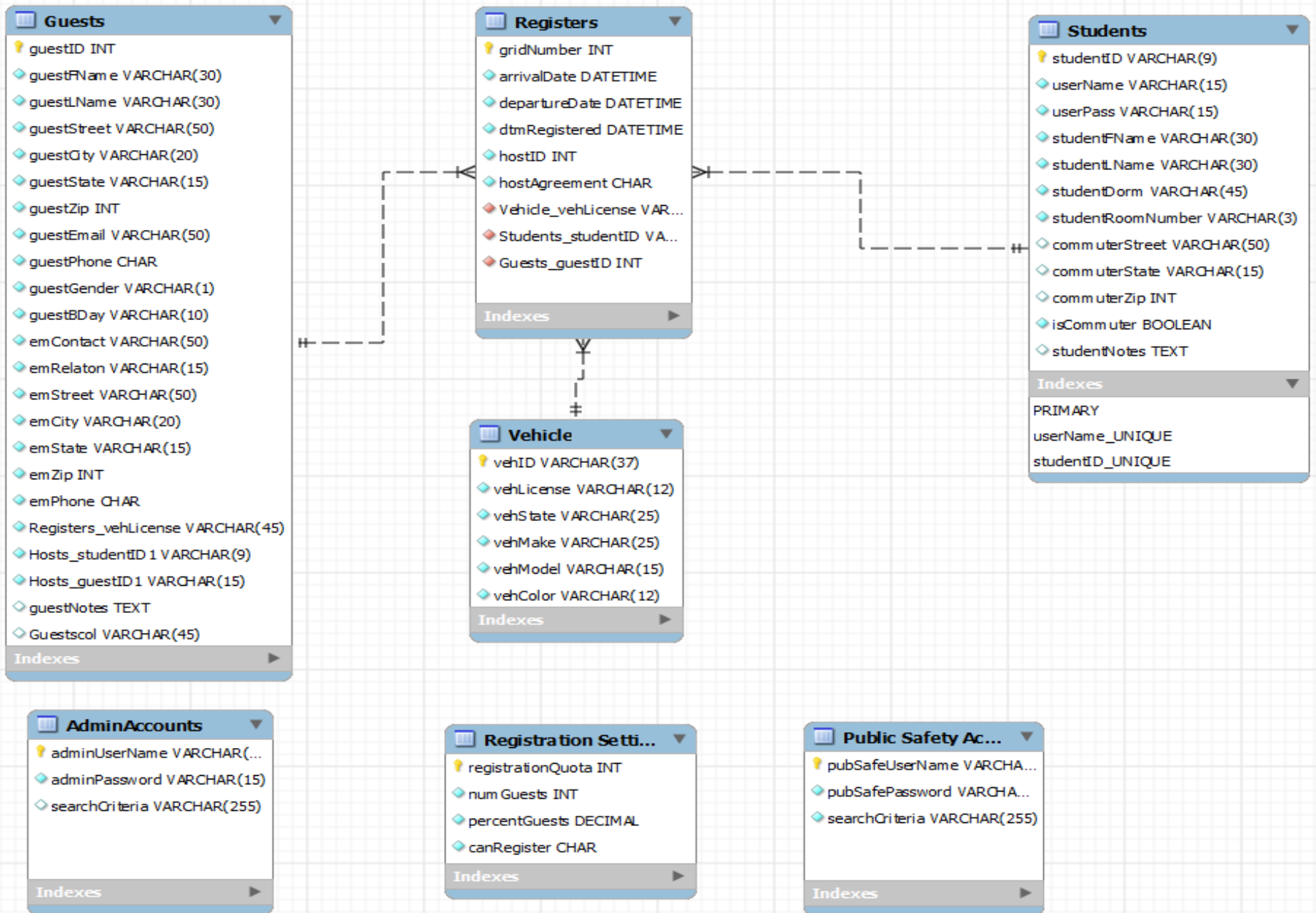
Attribute



Foreign Key



Table



# Agenda

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- **Live Prototype Demo**
- Upcoming Stages of Development

# Live Prototype Demo

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## Live Prototype Demo

# Agenda

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- **Upcoming Stages of Development**



# Next Steps

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- **Development and Testing**
  - March 7, 2013 – April 29, 2013
- **Acceptance test**
  - Wednesday, May 1, 2013

# Any Questions?

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Team leader

**Patrick Decker**  
Project Manager



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