**Handling User Stories with Rails Scaffold, Custom Migrations, and ActiveStorage**

**Table of Contents**

1. [Introduction](#_1._Introduction)
2. [Generating a Rails Scaffold for User Story 1: Creating a Student](#_2._Generating_a)
3. [Custom Migration for Email Validation](#_3._Custom_Migration)
4. [Model Validations for User Stories 1 and 2](#_4._Model_Validations)
5. [Setting Up ActiveStorage for Profile Pictures (User Story 3)](#_5._Setting_Up)
6. [Displaying the Profile Picture (User Story 3)](#_6._Displaying_the)
7. [Modifying StudentsController to Permit Profile Picture Uploads](#_7._Modifying_StudentsController)
8. [Adding File Upload Field to Form for Profile Picture](#_8._Adding_File)
9. [Adding a Default Profile Picture](#_9._Adding_a)
10. [Testing (TDD) for Student Model and Features](#_10._Testing_(TDD))
11. [References](#_11._References)

### 1. Introduction

* Purpose: To provide a step-by-step guide for handling user stories in a Rails project.
* Overview: Explains the use of Rails scaffold, custom migrations, ActiveStorage, and TDD to manage key features like student profiles and profile picture uploads.

### 2. Generating a Rails Scaffold for User Story 1: Creating a Student

* Scaffold Command
* Database Schema Generation
* Next Steps: Customizing Validations

### 3. Custom Migration for Email Validation

* Generating a Migration
* Modifying Migration File
* Running the Migration

### 4. Model Validations for User Stories 1 and 2

* Validating Fields: First Name, Last Name, Major, School Email, Graduation Date
* Uniqueness and Format of School Email

### 5. Setting Up ActiveStorage for Profile Pictures (User Story 3)

* Installing ActiveStorage
* Migrating the Database

### 6. Displaying the Profile Picture (User Story 3)

* Show View Logic: Displaying Uploaded or Default Image
* Image Variants and Resizing

### 7. Modifying StudentsController to Permit Profile Picture Uploads

* Strong Parameters for Profile Picture

### 8. Adding File Upload Field to Form for Profile Picture

* Updating Form for Profile Picture Input

### 9. Adding a Default Profile Picture

* Setting Default Image in Assets

### 10. Testing (TDD) for Student Model and Features

* Test Setup: Student Fixtures
* Key Tests for Validation, Uniqueness, and Saving

### 11. References

* Cited Materials: Books, Documentation, etc.