

SMARTron Software Requirements Specification

Version 0.6

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Mission Statement

Creating a headless scantron analyzer that comes with a companion website which allows managing exams that have previously been scanned.

1 Introduction

1.1 Purpose

The purpose of this document is to give a detailed description of the requirements for the SMARTron software. It will illustrate the purpose and complete specifications for the development of the system. It will also explain the constraints, interfaces and interactions with other external applications. This document is primarily intended to be proposed to a stakeholder for its approval and a reference for developing the first version of the system for the development team.

1.2 Scope

SMARTron will be an automatic grading program maintaining compatibility with existing 200-answer Scantron answer sheets. The program will allow the user to maintain a familiar workflow of scanning answer sheets and receiving an email containing the results. This will be accomplished by a headless answer sheet analysis program that receives emails containing an answer key and student answer sheets from any scanner, and emails results to the instructor.

SMARTron will also include a web app providing benefits over the current Scantron workflow. Scanned exams are associated with an instructor's LakerNet ID, and they can log in to the web app to view and edit scanned exams. The web app will provide functionality to make corrections to answer keys and rename exams. Users will also have the option to create an answer key in-app and generate a custom answer sheet compatible with the analysis program.

1.3 Definitions, acronyms, and abbreviations

Term	Definition
<i>User</i>	An individual who utilizes the system
<i>Scantron sheet</i>	A paper form that contains fields for answering multiple choice

	questions with a fixed layout
<i>PC</i>	Personal Computer
<i>SMARTron Engine</i>	The headless application that receives and processes Scantron sheets and emails results
<i>SMARTron Web App</i>	The online application that provides the user interface for viewing and correcting scanned exams
<i>SMARTron Mail Client</i>	An email address associated with the SMARTron application
<i>LakerNet ID</i>	The username/identification a user will provide, specific to SUNY Oswego
<i>Credentials</i>	The user's username/identification and password that they will use to log into the SMARTron Web App
<i>Login</i>	The action required from a user to be able to access the SMARTron Web App
<i>SRS</i>	Software Requirements Specification
<i>QMR</i>	Quality Management Report
<i>CSV file</i>	A comma-separated value text file used to store and format tabular data
<i>Grade</i>	The process done by the SMARTron Engine that calculates the points earned on an exam sheet
<i>Statistics</i>	Measurable numerical information pertaining to a student's calculated grades
<i>Results</i>	A student's grades and statistics from a selected exam
<i>SMARTron Database</i>	The collection of information stored by the SMARTron application

1.4 References

1.5 Overview

2 Overall Description

2.1 Product Perspective

2.1.1 User interfaces

The user will interact with a physical scantron sheet and a web-based client that allows for re-execution of the program with different inputs.

2.1.2 Hardware interfaces

The user will have access to and utilize a faculty scanner. There he will be able to scan all scantron sheets including the answer key without leaving his building. The user's PC is where he will interact with the email containing all data and statistics from the test results.

2.1.3 Software interfaces

The user will be able to utilize his existing Oswego email, which is a Google account, to initiate scanning the hard copy scantrons as well as receive the test results upon completion of the analysis by the program. The user will also be interacting with the SMARTron software in order to access results, create and edit answer keys. Microsoft Excel is the other software that the user wants to synchronize with SMARTron. Once the results have been emailed to the user, they should have the ability to upload/copy the results into a current Excel spreadsheet.

2.1.4 Communications interfaces

Computer

Email

Scanner

3 Specific Requirements

3.1 Functions

3.1.1 Automatic Scantron Analysis

FR-1: The SMARTron Engine shall load a PDF file of scanned Scantron sheets received via email.

FR-2: The SMARTron Engine shall extract the images of Scantron sheets from the received PDF

FR-3: The SMARTron Engine shall process each image.

FR-3.1: The SMARTron Engine shall convert the image to greyscale.

FR-3.2: The SMARTron Engine shall apply gaussian blur to the image.

FR-3.3: The SMARTron Engine shall create a copy of the image with the canny filter.

FR-3.4: The SMARTron Engine shall apply inverted threshold to original image.

FR-3.5: The SMARTron Engine shall find all edges on the canny image copy.

FR-3.6: The SMARTron Engine shall filter through all edges and detect circles.

FR-3.7: The SMARTron Engine shall sort the circles in rows and columns.

FR-3.8: The SMARTron Engine shall find question circle groups.

FR-3.9: The SMARTron Engine shall find name circle groups.

FR-3.10: The SMARTron Engine shall find date, ID, sex, and grade circle groups.

FR-3.11: The SMARTron Engine shall iterate through all groups recording the darkest circle.

FR-3.12: The SMARTron Engine shall store records of all detected fields.

3.1.2 Computing Statistics

FR-4: The SMARTron Engine shall compute the following statistics for a graded exam:

1. Mean score in both percentage and points
2. Median score in both percentage and points
3. Quartiles in points
4. Frequency of each response for each question
5. Lowest score
6. Highest score

7. Range of scores
8. Standard deviation of scores
9. Variation of scores
10. KR-20 reliability
11. KR-21 reliability
12. Coefficient (Cronbach) alpha reliability

FR-5: The SMARTron Engine shall request raw test data from the SMARTron Database when recomputing the statistics in FR-4.

3.1.3 Data Recording

FR-6: The SMARTron Engine shall create a blank CSV file.

FR-7: The SMARTron Engine shall produce columns in the CSV file for student name, ID, and score.

FR-8: The SMARTron Engine shall create rows in the CSV file for each student answer sheet associated with the exam.

FR-9: The SMARTron Engine shall send an email to the address associated instructor containing the generated CSV file and the statistics computed in FR-4.

FR-10: The SMARTron Engine shall send the raw test data to the SMARTron Database.

3.2 Use Cases

Use Case UC-1	Automatically Grade Exam
Related Use Cases	UC-2, UC-3, UC-4, UC-5, UC-6, UC-7
Initiating Actor	Instructor
Actor's Goal	Receive an email containing student grades and overall statistics for an exam.
Participating Actors	Scanner, SMARTron Engine, SMARTron Database, SMARTron Mail Client
Preconditions	The instructor has a set of filled-in answer sheets with one filled in as an answer key. The instructor has access to a scanner that can send emails. The SMARTron Engine and Database are running.
Postconditions	The instructor has received an email with exam grades and statistics.

	Flow of Events for Main Success Scenario
1.	The instructor scans the filled-in answer sheets with a scanner configured to send emails to the SMARTron system.
2.	The scanner emails the scanned answer sheets to the SMARTron Mail Client.
3.	The SMARTron Mail Client extracts the attachment containing the scanned answer sheets and passes them to the SMARTron Engine.
4.	The SMARTron Engine processes the answer sheets to determine student grades.
5.	The SMARTron Engine records answer sheet data in the SMARTron Database.
6.	The SMARTron Engine computes statistics for the exam.
7.	The SMARTron Engine creates a CSV file containing student grades.
8.	The SMARTron Mail Client sends an email containing the computed statistics and generated CSV file to the instructor.

Use Case UC-2	Extract Emailed Answer Sheets
Related Use Cases	UC-1
Initiating Actor	SMARTron Mail Client
Actor's Goal	Extract a file containing scanned answer sheets and send it to the SMARTron Engine
Participating Actors	Scanner, SMARTron Mail Client, SMARTron Engine, SMARTron Database
Preconditions	An email containing scanned answer sheets has been sent to the SMARTron Mail Client's email address.
Postconditions	The SMARTron Mail Client has sent a file containing scanned answer sheets to the SMARTron Engine.

	Flow of Events for Main Success Scenario
1.	The SMARTron Mail Client receives an email containing scanned sheets as a PDF file or a set of supported image files.
2.	The SMARTron Mail Client extracts file attachments from the email.
3.	If every file is in a format supported by the SMARTron Engine, the files are sent to the SMARTron Engine.

Use Case UC-3	Extract Answer Data
Related Use Cases	UC-1, UC-2
Initiating Actor	SMARTron Engine
Actor's Goal	Extract all data contained on each answer sheet.
Participating Actors	SMARTron Engine, SMARTron Database
Preconditions	The SMARTron Engine has a file or set of files containing images of data sheets.
Postconditions	The answer sheet data has been extracted and stored in the SMARTron Database.

	Flow of Events for Main Success Scenario
1.	The SMARTron Engine extracts images from a PDF file if necessary.
2.	The SMARTron Engine applies filters to the image to remove irrelevant details and ease circle recognition.
3.	The SMARTron Engine determines the positions of filled circles on the answer sheet.
4.	The SMARTron image translates circle positions into an array containing sets of filled circles for each field.
5.	The SMARTron Engine repeats steps 1 through 5 for each answer sheet in the set.
6.	The SMARTron Engine marks one answer sheet as the answer key.
7.	The SMARTron Engine sends the extracted answer sheet data to the SMARTron Database.

Use Case UC-4	Assign Student Grades
Related Use Cases	UC-1, UC-2, UC-3
Initiating Actor	SMARTron Engine
Actor's Goal	Calculate a grade for each answer sheet in a given exam.
Participating Actors	SMARTron Engine
Preconditions	The SMARTron Engine has answer sheet data for an answer key and a set of student answer sheets.
Postconditions	The SMARTron Engine has calculated a grade for each student answer sheet.

	Flow of Events for Main Success Scenario
1.	The SMARTron Engine iterates through each answer on a student answer sheet, assigning the appropriate points based on the answer key and the point value of the question.
2.	The SMARTron Engine stores the total points for the answer sheet and associates the score with the name and Student ID read from the answer sheet.
3.	The SMARTron Engine repeats steps 1 and 2 for each answer sheet in the set.

Use Case UC-5	Compute Statistics
Related Use Cases	UC-1, UC-3, UC-4
Initiating Actor	SMARTron Engine
Actor's Goal	Compute the necessary statistics for an exam
Participating Actors	SMARTron Engine
Preconditions	The SMARTron Engine has a set of answer sheet data and a set of student grades
Postconditions	The SMARTron Engine has computed all required statistics.

	Flow of Events for Main Success Scenario
1.	The SMARTron Engine computes necessary overall statistics (See Appendix B).
2.	The SMARTron Engine computes an item analysis for each exam item (See Appendix B).
3.	The SMARTron Engine computes item statistics for each exam item (See Appendix B).
4.	The SMARTron Engine stores the computed statistics.

Use Case UC-6	Create CSV File
Related Use Cases	UC-4
Initiating Actor	SMARTron Engine
Actor's Goal	Create a CSV file containing student grades for an exam.
Participating Actors	SMARTron Engine
Preconditions	The SMARTron Engine has a set of student grades.
Postconditions	The SMARTron Engine has generated a CSV spreadsheet of student grades.

	Flow of Events for Main Success Scenario
1.	The SMARTron Engine creates a blank CSV file.
2.	The SMARTron Engine creates columns for student name, student ID, and score.
3.	The SMARTron Engine fills each row with the corresponding data from an item in the set of student grades.
4.	The SMARTron Engine saves the generated CSV file.

Use Case UC-7	Send Email to Instructor
Related Use Cases	UC-1, UC-5, UC-6
Initiating Actor	SMARTron Mail Client
Actor's Goal	Send an email containing student grades and overall statistics for an exam to the instructor.
Participating Actors	SMARTron Engine, SMARTron Mail Client, Instructor
Preconditions	The SMARTron Engine has computed grades and statistics for an exam.
Postconditions	The SMARTron Mail Client has sent an email containing exam grades and statistics to the instructor.

	Flow of Events for Main Success Scenario
1.	The SMARTron Mail Client generates HTML displaying the computed statistics for the exam.
2.	The SMARTron Mail Client creates an email containing the statistics HTML.
3.	The SMARTron Mail Client adds the generated CSV file as an attachment to the email.
4.	The SMARTron Mail Client sends the generated email to the email address associated with the instructor.

Use Case UC-8	Login to SMARTron Web App
Related Use Cases	UC-9, UC-10
Initiating Actor	Instructor
Actor's Goal	Access the SMARTron Web App
Participating Actors	SMARTron Web App
Preconditions	The instructor must have an existing LakerApps account.
Postconditions	The instructor has access to the features of the SMARTron Web App.

	Flow of Events for Main Success Scenario
1.	The instructor opens the SMARTron website in their web browser
2.	The instructor is prompted to log into the SMARTron web app
3.	The instructor enters their proper credentials (LakerNet ID and password)
4.	The user is redirected to the SMARTron Web App dashboard

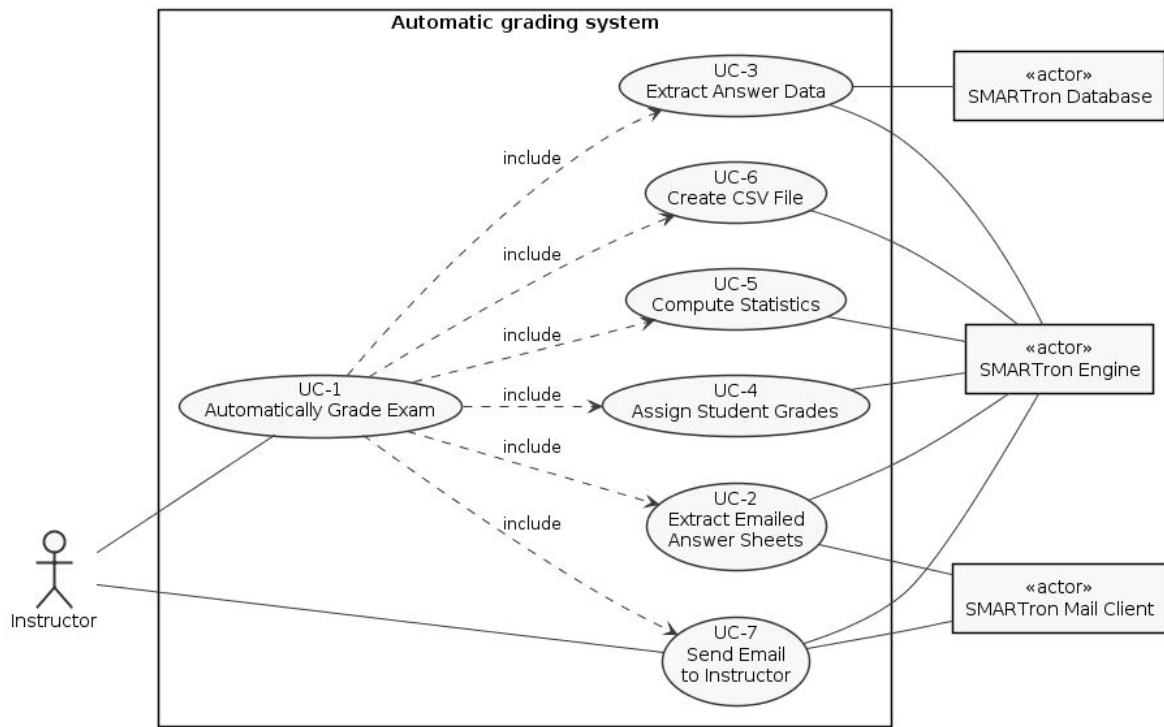
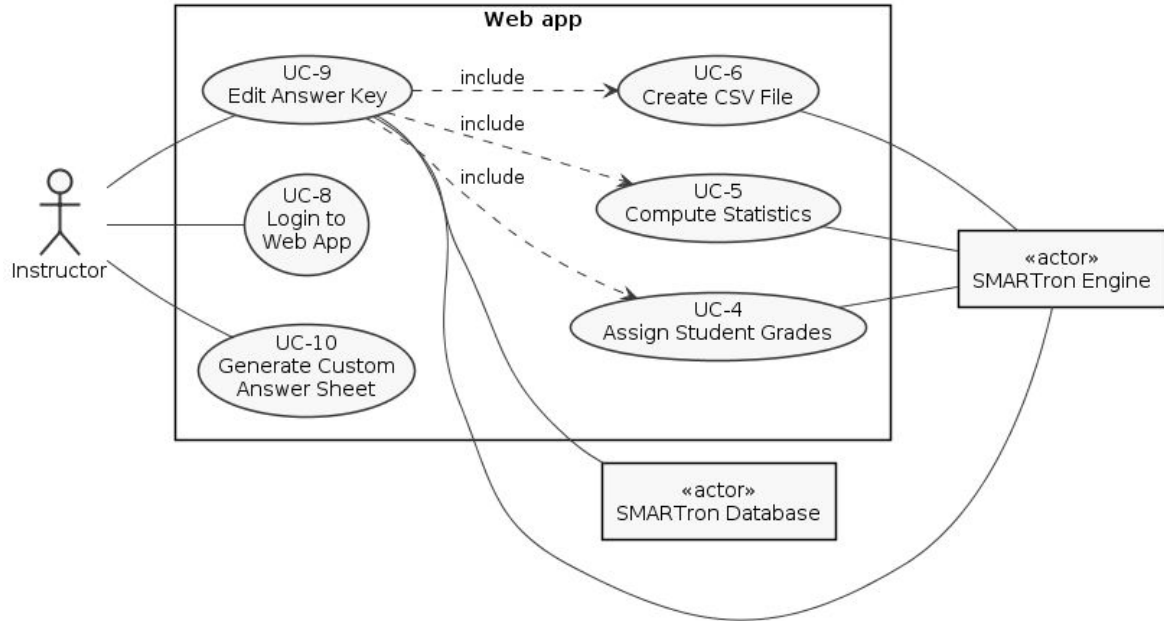
Use Case UC-9	Edit Answer Key
Related Use Cases	UC-4, UC-5, UC-8
Initiating Actor	Instructor
Actor's Goal	Edit an existing answer key
Participating Actors	SMARTron Web App
Preconditions	There must be an existing account on SMARTron, and there must be an existing answer key to edit
Postconditions	The exam is reanalyzed according to the new answer key

	Flow of Events for Main Success Scenario
1.	The instructor logs into the SMARTron Web App.
2.	The instructor navigates to the exam they wish to change.
3.	The instructor makes their desired changes to the answer key.
4.	The instructor saves the changes to the answer key.
5.	The associated exams are re-graded according to UC-4

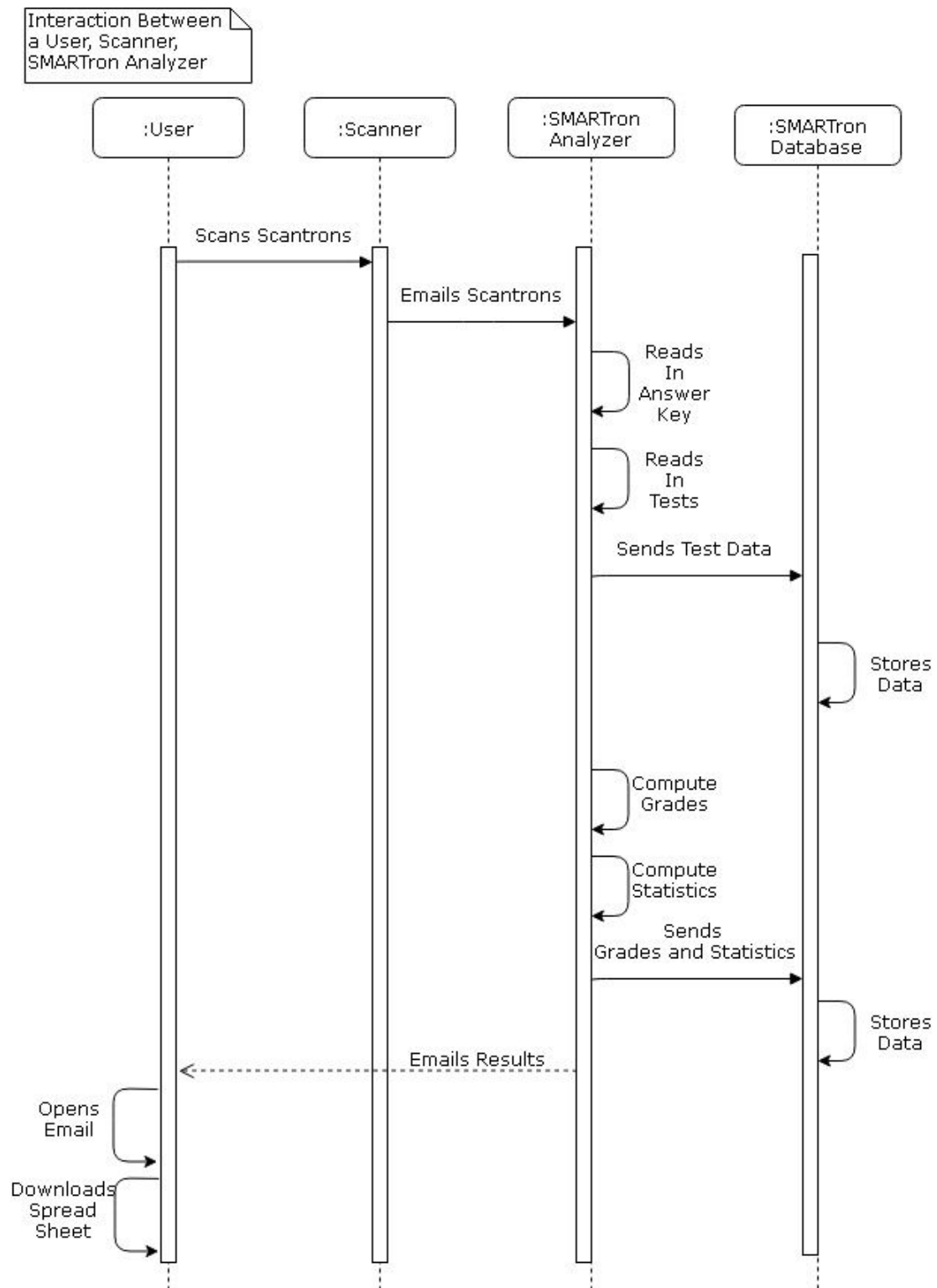
Use Case UC-10	Generate Custom Answer Sheet
Related Use Cases	UC-8
Initiating Actor	Instructor
Actor's Goal	Create a custom answer sheet for a multiple-choice test.
Participating Actors	SMARTron Web App
Preconditions	The instructor must be logged into the SMARTron Web App.
Postconditions	A custom exam sheet is generated for future use.

	Flow of Events for Main Success Scenario
1.	The instructor navigates to the “create exam sheet” page.
2.	The instructor customizes an answer sheet.
3.	The instructor downloads a PDF of the custom answer sheet.

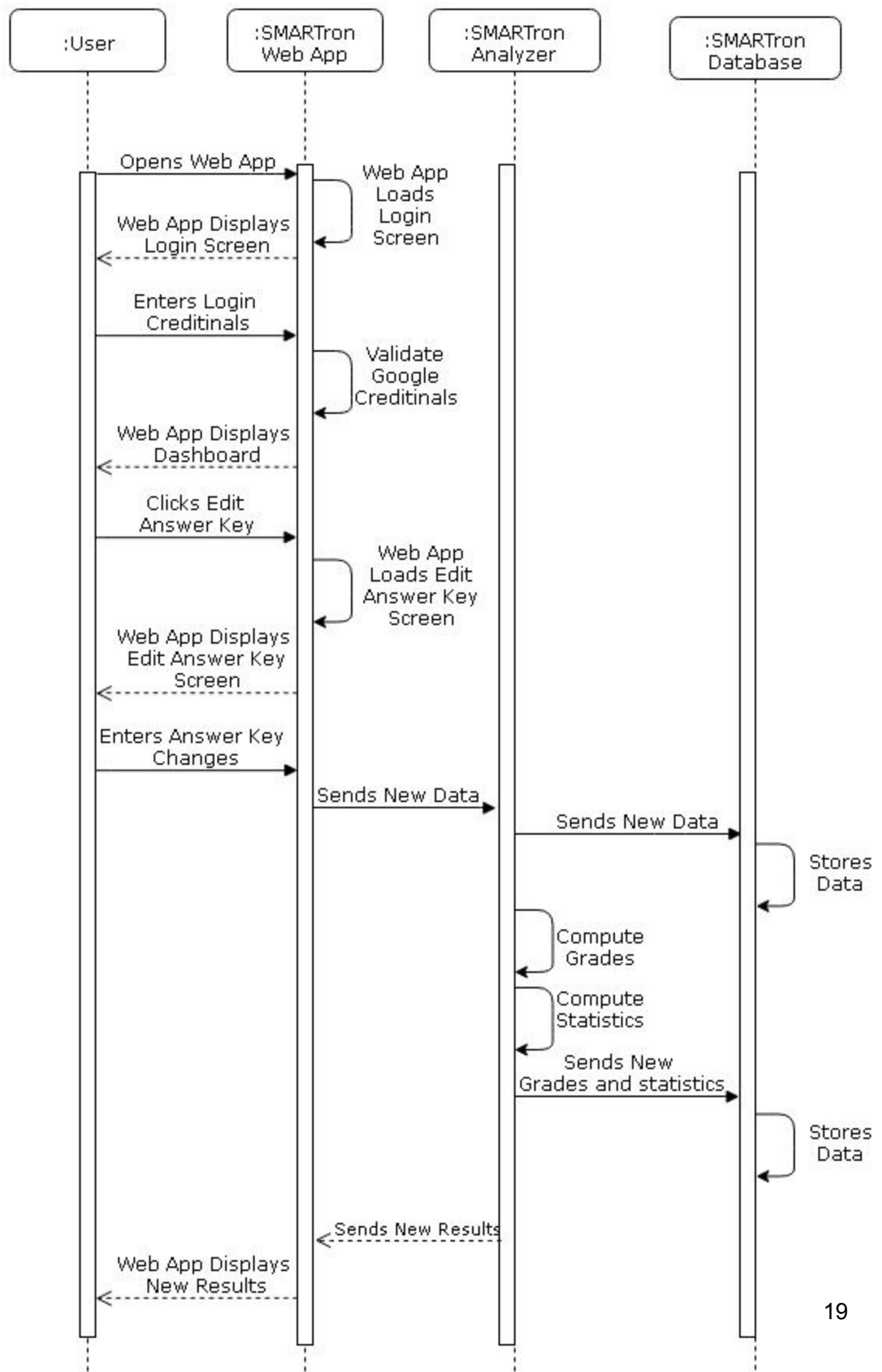
3.3 Use Case Diagrams



3.4 Sequence Diagrams



Editing Answer Key



Appendix A: 200 Question Scantron Sheet

[illegible]

SIDE 2

SCANTRON®
GENERAL PURPOSE
ANSWER SHEET
form no. 4521

101	A B C D E	111	A B C D E	121	A B C D E	131	A B C D E	141	A B C D E
102	A B C D E	112	A B C D E	122	A B C D E	132	A B C D E	142	A B C D E
103	A B C D E	113	A B C D E	123	A B C D E	133	A B C D E	143	A B C D E
104	A B C D E	114	A B C D E	124	A B C D E	134	A B C D E	144	A B C D E
105	A B C D E	115	A B C D E	125	A B C D E	135	A B C D E	145	A B C D E
106	A B C D E	116	A B C D E	126	A B C D E	136	A B C D E	146	A B C D E
107	A B C D E	117	A B C D E	127	A B C D E	137	A B C D E	147	A B C D E
108	A B C D E	118	A B C D E	128	A B C D E	138	A B C D E	148	A B C D E
109	A B C D E	119	A B C D E	129	A B C D E	139	A B C D E	149	A B C D E
110	A B C D E	120	A B C D E	130	A B C D E	140	A B C D E	150	A B C D E
151	A B C D E	161	A B C D E	171	A B C D E	181	A B C D E	191	A B C D E
152	A B C D E	162	A B C D E	172	A B C D E	182	A B C D E	192	A B C D E
153	A B C D E	163	A B C D E	173	A B C D E	183	A B C D E	193	A B C D E
154	A B C D E	164	A B C D E	174	A B C D E	184	A B C D E	194	A B C D E
155	A B C D E	165	A B C D E	175	A B C D E	185	A B C D E	195	A B C D E
156	A B C D E	166	A B C D E	176	A B C D E	186	A B C D E	196	A B C D E
157	A B C D E	167	A B C D E	177	A B C D E	187	A B C D E	197	A B C D E
158	A B C D E	168	A B C D E	178	A B C D E	188	A B C D E	198	A B C D E
159	A B C D E	169	A B C D E	179	A B C D E	189	A B C D E	199	A B C D E
160	A B C D E	170	A B C D E	180	A B C D E	190	A B C D E	200	A B C D E

EXAMPLES

WRONG
1 1 1 3 4 5
WRONG
2 1 2 3 4 5
WRONG
3 1 2 3 4 5
RIGHT
4 1 2 3 4 5

IMPORTANT DIRECTIONS
FOR MARKING ANSWERS

- Use #2 pencil only.
- Do NOT use ink or ballpoint pens.
- Make heavy black marks that fill the circle completely.
- Erase cleanly any answer you wish to change.
- Make no stray marks on the answer sheet.

DO NOT WRITE
IN THIS SPACE

Reorder Form No. 4521
www.ScanttronStore.com
800-722-6876

SCANTRON®

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SCANTRON® Trans-Optic® EM-4521-5654521

Appendix B: Sample Results

Student Statistics Report			
Overall			
Student	Grade	Total	Percent
	F	0 / 24	0.00
	B	20 / 24	83.33
	D	16 / 24	66.67
	C	18 / 24	75.00
	B	20 / 24	83.33
	B	20 / 24	83.33
	D	16 / 24	66.67
	F	14 / 24	58.33
	B	20 / 24	83.33
	A	22 / 24	91.67
	F	14 / 24	58.33
	F	14 / 24	58.33
	F	14 / 24	58.33
	D	16 / 24	66.67
	D	16 / 24	66.67
	A	22 / 24	91.67
	C	18 / 24	75.00
	C	18 / 24	75.00
	B	20 / 24	83.33
	A	24 / 24	100.00
	C	18 / 24	75.00
	C	18 / 24	75.00
	B	20 / 24	83.33
	C	18 / 24	75.00
	D	16 / 24	66.67
	B	20 / 24	83.33
	F	14 / 24	58.33
	D	16 / 24	66.67
	B	20 / 24	83.33
	D	16 / 24	66.67
	C	18 / 24	75.00

3/8/2017

Student Statistics Report

Page 1

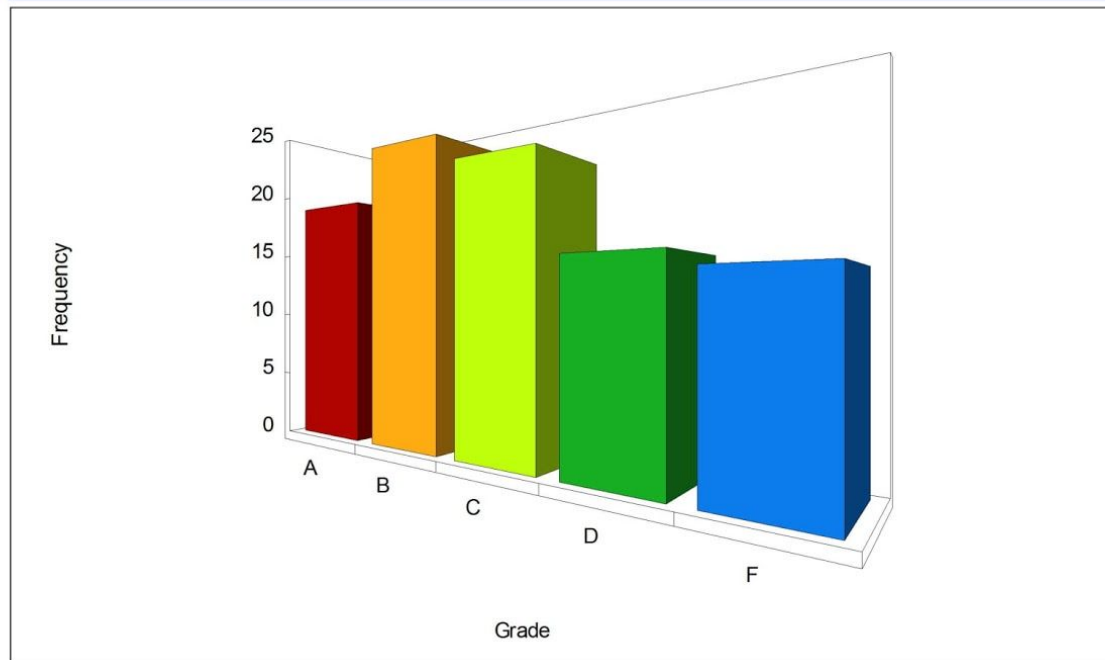
Class Frequency Distribution Report

Overall

Mean Score: 76.02%



Grade	Percent Score	Raw Score	Frequency	Percent
A	90.00 - 100.00	21.60 - 24.00	19	21.11
B	80.00 - 89.99	19.20 - 21.59	23	25.56
C	70.00 - 79.99	16.80 - 19.19	21	23.33
D	60.00 - 69.99	14.40 - 16.79	14	15.56
F	0.00 - 59.99	0.00 - 14.39	13	14.44



Note: No 3D bar graphs!

Test Statistics Report		
	Overall	
Score Data		
Number of Graded Items	12	
Total Points Possible	24	
Maximum Score	24	
Minimum Score	0	
Statistics		
Mean Score	18.24	
Mean Percent Score	76.02	
Benchmark Score	-	
Range of Scores	24.00	
Standard Deviation	3.71	
Variance	13.76	
Percentiles		
Percentile (25)	16.00	
Median Score	18.00	
Percentile (75)	20.00	
Inter Quartile Range	4.00	
Confidence Intervals		
1%	17.22	
5%	17.47	
95%	19.02	
99%	19.27	
Test Reliability		
Kuder-Richardson Formula 20	0.57	
Kuder-Richardson Formula 21	1.84	
Coefficient (Cronbach) Alpha	0.57	

Condensed Item Analysis Report

Legend: Correct: ■ Incorrect: ■ Distractors Chosen More than Correct Answer: ■

Question1

Response	Frequency	Percent	
*A	83	92.22	<div><div style="width: 92.22%;"></div></div>
B	4	4.44	<div><div style="width: 4.44%;"></div></div>
C	0	0.00	<div><div style="width: 0.00%;"></div></div>
D	2	2.22	<div><div style="width: 2.22%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

Question2

Response	Frequency	Percent	
A	1	1.11	<div><div style="width: 1.11%;"></div></div>
B	1	1.11	<div><div style="width: 1.11%;"></div></div>
*C	87	96.67	<div><div style="width: 96.67%;"></div></div>
D	0	0.00	<div><div style="width: 0.00%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

Question3

Response	Frequency	Percent	
A	4	4.44	<div><div style="width: 4.44%;"></div></div>
*B	82	91.11	<div><div style="width: 91.11%;"></div></div>
C	3	3.33	<div><div style="width: 3.33%;"></div></div>
D	0	0.00	<div><div style="width: 0.00%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

Question4

Response	Frequency	Percent	
A	6	6.67	<div><div style="width: 6.67%;"></div></div>
B	34	37.78	<div><div style="width: 37.78%;"></div></div>
*C	49	54.44	<div><div style="width: 54.44%;"></div></div>
D	0	0.00	<div><div style="width: 0.00%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

Question5

Response	Frequency	Percent	
A	5	5.56	<div><div style="width: 5.56%;"></div></div>
B	16	17.78	<div><div style="width: 17.78%;"></div></div>
C	3	3.33	<div><div style="width: 3.33%;"></div></div>
*D	65	72.22	<div><div style="width: 72.22%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

Question6

Response	Frequency	Percent	
*A	78	86.67	<div><div style="width: 86.67%;"></div></div>
B	6	6.67	<div><div style="width: 6.67%;"></div></div>
C	0	0.00	<div><div style="width: 0.00%;"></div></div>
D	4	4.44	<div><div style="width: 4.44%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	2	2.22	<div><div style="width: 2.22%;"></div></div>

Question7

Response	Frequency	Percent	
A	0	0.00	<div><div style="width: 0.00%;"></div></div>
*B	79	87.78	<div><div style="width: 87.78%;"></div></div>
C	1	1.11	<div><div style="width: 1.11%;"></div></div>
D	8	8.89	<div><div style="width: 8.89%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	2	2.22	<div><div style="width: 2.22%;"></div></div>

Question8

Response	Frequency	Percent	
A	2	2.22	<div><div style="width: 2.22%;"></div></div>
*B	76	84.44	<div><div style="width: 84.44%;"></div></div>
C	11	12.22	<div><div style="width: 12.22%;"></div></div>
D	0	0.00	<div><div style="width: 0.00%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

Question9

Response	Frequency	Percent	
A	43	47.78	<div><div style="width: 47.78%;"></div></div>
*B	21	23.33	<div><div style="width: 23.33%;"></div></div>
C	20	22.22	<div><div style="width: 22.22%;"></div></div>
D	5	5.56	<div><div style="width: 5.56%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

Question10

Response	Frequency	Percent	
A	21	23.33	<div><div style="width: 23.33%;"></div></div>
*B	43	47.78	<div><div style="width: 47.78%;"></div></div>
C	11	12.22	<div><div style="width: 12.22%;"></div></div>
D	14	15.56	<div><div style="width: 15.56%;"></div></div>
E	0	0.00	<div><div style="width: 0.00%;"></div></div>
Missing	1	1.11	<div><div style="width: 1.11%;"></div></div>

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Question11

Response	Frequency	Percent	
A	1	1.11	
B	6	6.67	
C	1	1.11	
*D	81	90.00	
E	0	0.00	
Missing	1	1.11	

Question12

Response	Frequency	Percent	
A	2	2.22	
B	6	6.67	
C	4	4.44	
*D	77	85.56	
E	0	0.00	
Missing	1	1.11	

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Test Item Statistics Report								
Question		Summary Statistics				Reliability		
Question	Points	Graded	Correct	Incorrect	No Response	Point Biserial	Percent Correct	
Question1	2	90	83	6	1	0.35	92.22	<div><div></div></div>
Question2	2	90	87	2	1	0.55	96.67	<div><div></div></div>
Question3	2	90	82	7	1	0.40	91.11	<div><div></div></div>
Question4	2	90	49	40	1	0.48	54.44	<div><div></div></div>
Question5	2	90	65	24	1	0.58	72.22	<div><div></div></div>
Question6	2	90	78	10	2	0.41	86.67	<div><div></div></div>
Question7	2	90	79	9	2	0.35	87.78	<div><div></div></div>
Question8	2	90	76	13	1	0.49	84.44	<div><div></div></div>
Question9	2	90	21	68	1	0.37	23.33	<div><div></div></div>
Question10	2	90	43	46	1	0.45	47.78	<div><div></div></div>
Question11	2	90	81	8	1	0.36	90.00	<div><div></div></div>
Question12	2	90	77	12	1	0.35	85.56	<div><div></div></div>