# Product Testing Plan

eTimely

Version 1.2

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# **Revision History**

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		Caleb Obi	Canvas.
		Chris Gumieny	
		Samia Chowdhury	
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		Caleb Obi	off professor's feedback from the first day of
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R	evision History	I
1.	Introduction	1
	1.1 Purpose	1
	1.2 References	1
2.	Functional Testing	1
	2.1 Approach	1
	2.2 Pass / Fail Criteria	1
	2.3 Entry / Exit Criteria	2
	2.4 Suspension / Resumption Criteria	
	2.5 Risks / Issues	
	2.6 Items to be Tested	
	2.6.1 Sign Up and Login	
	2.6.2 Availability Confirmation	
	2.6.3 Announcements	
	2.6.4 Roles	6
	Test Case ID	6
	Title	6
	Description	6
	2.6.5 User Logout	6
	2.6.6 Profile Updates	6
	2.6.7 Contact Us	7
	2.6.8 Staff Availability Change	7
	2.6.9 Team Availability	
	2.6.10 Schedule Creation	
2	2.6.11 Staff Schedule Page	
3.	Non-functional Testing	
	3.1 Approach	
	3.2 Pass/Fail Criteria	
	3.3 Entry / Exit Criteria	. 10
	3.4 Suspension / Resumption Criteria	
	3.5 Risks / Issues	. 11
	3.6 Items to be Tested	. 11
	3.6.1 Non-functional Test Cases	11

4.	Integration Testing	. 12
	4.1 Approach	. 12
	4.2 Pass/Fail Criteria	. 12
	4.3 Entry / Exit Criteria	. 13
	4.4 Suspension / Resumption Criteria	. 13
	4.5 Risks / Issues	. 13
	4.6 Items to be Tested	. 13
	4.6.1 Integration Test	. 13
5.	System Testing	. 14
	5.1 Approach	14
	5.2 Pass/Fail Criteria	. 14
	5.3 Entry / Exit Criteria	14
	5.4 Suspension / Resumption Criteria	. 15
	5.5 Risks / Issues	
	5.6 Execution Path	. 15
	5.6.1 Default User	15
	5.6.2 Business User First Login	. 15
	5.6.3 Staff User	. 17
	5.6.4 Business User Second Login	. 18
6.	Functional Test Cases	. 18
	6.1 Business Sign-Up	. 18
	6.2 Business Login	. 22
	6.3 Business Account Verification	. 25
	6.4 Staff Signup	. 25
	6.5 Staff Login	. 27
	6.6 Reset Password	. 27
	6.7 Availability Confirmation	. 29
	6.8 Announcements	
	6.9 Roles	
	6.10 User Logout	
	6.11 Profile Updates	
	6.12 Contact Us	11

6.	13 Staff Availability Change	. 46
6.	14 Team Availability	. 53
6.	15 Schedule Creation	. 55
6.	16 Staff Schedule Page	. 65
7. N	Ion-functional Test Cases	. 66
7.	1 Performance	. 66
7.	2 Reliability	. 69
7.	3 Security	. 69
7.	4 Portability	. 70
8. Ir	ntegration Test Cases	. 70
8.	1 Nodemailer Email Service	. 70
9. S	ystem Test Cases	. 72
9.	1 Default User	. 72
9.	2 Business User First Login	. 74
9.	3 Staff User	. 86
9.	4 Business User Second Login	. 92
App	pendix	. 97
A	.1 Database Setup	. 97
A	2 Testing Schedule	. 98
	A.2.1 Functional Testing Schedule	98
	A.2.2 Non-functional Testing Schedule	
	A.2.3 Integration Testing Schedule	99
	A 2 A System Testing Schedule	QQ

## 1. Introduction

# 1.1 Purpose

The purpose of this document is to outline how the eTimely application will be tested to ensure all features and functionalities are working as expected. With this document, the intended audience will have a comprehensive outline of all the different sorts of test cases, consisting of functional testing, non-functional testing, integration testing, and system testing.

#### 1.2 References

The test cases referenced throughout this document are defined in a detailed format within sections 6 through 9 of this document. Each test case is defined based off a particular requirement or use case defined in the eTimely Software Requirement Specification document or eTimely Design Specification document respectively.

Additionally, the appendix of this document will define various ways to set up the database before running a test case. These will be referenced in the preconditions of a test case, such as DBS-00, DBS-01, and so on.

# 2. Functional Testing

# 2.1 Approach

Functional testing will test the functionalities of the features implemented in the eTimely web application to ensure each functionality is working as intended. Testing will be performed manually by a tester following the steps of the test cases outlined in this document.

#### 2.2 Pass / Fail Criteria

Functional testing will pass if the tests meet the expected results and postconditions listed in each of the functional test cases.

Functional testing will fail if the tests do not meet the expected results and postconditions listed in each of the functional test cases and will be flagged for review.

## 2.3 Entry / Exit Criteria

Functional testing will begin at the completion of prototype three and will end when each test case is passed.

## 2.4 Suspension / Resumption Criteria

If a test case were to fail, testing of other cases will continue as expected while the team works to find the reason for the failure. The only case in which a single test case fails, and other tests are suspended is if the failed test being executed properly is a precondition of a one or more later tests. If this were to happen, then those later test cases will be suspended as well. Testing of the failed test and any tests dependent upon it will resume after the team has investigated and resolved the cause of the failure.

Additionally, if between all testers, there are 10 or more tests cases that fail we shall suspend testing. This is because having this many failed test cases means there are one or more major issues in the code that are causing the tests to fail. If this is the case, we will resume testing after reviewing the code to find the issue (or issues) and apply any needed fixes.

#### 2.5 Risks / Issues

Since the database will be cleared and repopulated for each test case, a few separate issues can arise. If the database is not populated properly, the entire test may fail. In addition to this, the constant emptying and repopulation of data could cause us to reach our maximum read, write, or delete limit on the database very quickly thus delaying testing.

#### 2.6 Items to be Tested

#### 2.6.1 Sign Up and Login

Test Case ID	Title	Description
TC-1	Business Sign Up	Test creating a business account with valid input
TC-2	Business Sign Up with Existing Email	Test creating a business account with an existing email

TC-3	Business Sign Up with Different Password	Test creating a business account with different passwords
TC-4	Business Sign Up without a Company Name	Test creating a business account without a company name
TC-5	Business Sign Up without a Company Email	Test creating a business account without a company email
TC-118	Business Sign Up without Terms and Conditions	Test making a business account without agreeing to terms and conditions
TC-6	Business Login: Success	Test logging into a business account successfully
TC-7	Business Login without Verified Email	Test logging into a business account without a verified email
TC-116	Business Login without an Email	Test logging into a business account without an email
TC-117	Business Login without a Password	Test logging into a business account without a password
TC-10	Verify Business Account	Test verifying a business account
TC-119	Staff Invite Sent	Test sending an invitation link to a new staff member
TC-11	Staff Sign Up	Test signing up a staff user
TC-12	Staff Login	Test staff logging in successfully
TC-13	Reset Password: Normal Flow	Test resetting password successfully
TC-14	Reset Password: Invalid Email	Test resetting password with an invalid email

# 2.6.2 Availability Confirmation

Test Case ID	Title	Description
TC-15	Availability Confirmation	Test that newly enter staff
		availability is displayed on
		dashboard.

## 2.6.3 Announcements

Test Case ID	Title	Description
TC-16	Announcement Creation	Test creating an
		announcement on the "Create
		Announcement" with valid
		input.
TC-17	Announcement Creation:	Test creating an
	Title too Short	announcement on the "Create
		Announcement" when the
		title is shorter than expected.
TC-18	Announcement Creation:	Test creating an
	Title too Long	announcement on the "Create
		Announcement" when the
		title is longer than expected.
TC-19	Announcement Creation:	Test creating an
	Details too Short	announcement on the "Create
		Announcement" when the
		details field is shorter than
		expected.
TC-20	Announcement Creation:	Test creating an
	Details too Long	announcement on the "Create
		Announcement" when the
		details field is longer than
		expected.
<u> </u>		

TC-21	Dashboard Announcement	Test creating an
	Creation	announcement on the
		business dashboard with valid
		input.
TC-22	Dashboard Announcement	Test creating an
	Creation: Title too Short	announcement on the
		business dashboard when the
		title is shorter than expected.
TC-23	Dashboard Announcement	Test creating an
	Creation: Title too Long	announcement on the
		business dashboard when the
		title is longer than expected.
TC-24	Dashboard Announcement	Test creating an
	Creation: Details too Short	announcement on the
		business dashboard when the
		details field is shorter than
		expected.
TC-25	Dashboard Announcement	Test creating an
	Creation: Details too Long	announcement on the "Create
		Announcement" when the
		details field is longer than
		expected.
TC-26	Announcement Deletion	Delete a previously created
		announcement.
TC-27	Business Announcement	Ensure business users can see
	Viewing	previously created
		announcements
TC-28	Staff Announcement Viewing	Ensure staff users can see
		previously created
		announcements
	<u> </u>	<u>I</u>

## 2.6.4 Roles

Test Case ID	Title	Description
TC-29	New Role Creation	Business user creating a new
		role type.
TC-30	Duplicate Business Role	Attempting to create a role
	Creation	with a name that is already in
		use.
TC-31	Edit Role: Success	Successfully changing the
		name of a role to something
		that is not already in use.
TC-32	Edit Role: Duplicate	Attempting to change the
		name of role to something
		that already exists.
TC-33	Delete Role	Deleting a role name from
		database.
TC-34	Staff Member Role Change	Change the assigned role of a
		staff user.

# 2.6.5 User Logout

Test Case ID	Title	Description
TC-35	Business Logout	Test logout functionality for
		business users
TC-36	Staff Logout	Test logout functionality for
		staff users

# 2.6.6 Profile Updates

Test Case ID	Title	Description
TC-37	Business Name Update	Test updating name as a
		business user.
TC-38	Staff Name Update	Update name as a staff user.

## 2.6.7 Contact Us

Test Case ID	Title	Description
TC-39	Contact Us: Success	Successfully send a message
		through the contact us feature
		with expected data in the
		fields.
TC-40	Contact Us: Empty Fields	Attempt to use the contact us
		feature without any info in
		the fields.
TC-41	Contact Us: Invalid Email	Attempt to use the contact us
	Field	feature without entering a
		valid email.
TC-42	Contact Us: Message too	Attempt to use the contact us
	Short	feature with a message that is
		shorter than expected.
TC-43	Contact Us: Message too	Attempt to use the contact us
	Long	feature with a message that is
		longer than expected.

## 2.6.8 Staff Availability Change

Test Case ID	Title	Description
TC-44	Staff Availability Change:	Enter availability for a past
	Past Date	date.
TC-45	Staff Availability Change:	Enter valid availability.
	Create a Valid Availability	
TC-46	Staff Availability Change:	Enter an already existing
	Enter a Duplicate Availability	availability.

TC-47	Staff Availability Change:	Enter an availability that
	Enter an Overlapping	overlaps with an existing one.
	Availability	
TC-48	Staff Availability Change:	Edit an availability to change
	Edit Existing Availability into	the date to a past date.
	a Past Date	
TC-49	Staff Availability Change:	Make a valid edit to an
	Valid Edit on an Existing	existing availability.
	Availability	
TC-50	Staff Availability Change:	Make an edit to an existing
	Overlapping Edit on Existing	availability that will overlap
	Availability	with another existing one.
TC-51	Staff Availability Change:	Make an edit to an existing
	Edit an Existing Availability	availability that turns it into a
	to a Duplicate	duplicate.
TC-52	Staff Availability Change:	Delete the availability from
	Delete Availability	the system.

## 2.6.9 Team Availability

Test Case ID	Title	Description
TC-53	Team Availability: Employee	View an employee that has
	with 0 Availabilities	not set an availability.
TC-54	Team Availability: Employee	View an employee that has
	with 1 Availability	set 1 availability
TC-55	Team Availability: Employee	View an employee that has
	with More than 7	set more than 7 availabilities.
	Availabilities	

## 2.6.10 Schedule Creation

Test Case ID Title Description
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Employee Field without selecting an employee.  TC-57 Schedule Creation: Schedule Attempt to create a shift for a past date.  TC-58 Schedule Creation: Schedule during the time that they are available.  TC-59 Schedule Creation: Schedule during the time that they are available.  TC-60 Schedule Creation: Schedule exists.  TC-60 Schedule Creation: Schedule during the time that already exists.  TC-61 Schedule Creation: Schedule during a time that overlaps with an existing shift for that employee.  TC-61 Schedule Creation: Schedule during a time that they are during a time that they are unavailable.  TC-62 Schedule Creation: Cancel cancel the creation of a shift that is Unavailable that is Unavailable that they are unavailable.  TC-63 Schedule Creation: Schedule cancel the creation of a shift that they are unavailable.  TC-63 Schedule Creation: Schedule cancel the creation of a shift that they are unavailable.  TC-63 Schedule Creation: Schedule cancel that they are unavailable.  TC-64 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-63 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-64 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-65 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-66 TC-67 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-68 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-69 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-69 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-69 Schedule Creation: Schedule creation cancel that they are unavailable.  TC-69 Schedule Creation: Schedule creation cancel that they are unavailable.	TC-56	Schedule Creation: Empty	Attempt to create a shift
TC-57  Schedule Creation: Schedule past date.  TC-58  Schedule Creation: Schedule create a shift for an employee an Employee that is Available a Duplicate Shift exists.  TC-60  Schedule Creation: Schedule an Overlapping Shift that overlaps with an existing shift for that employee.  TC-61  Schedule Creation: Schedule an Employee that is Unavailable.  TC-62  Schedule Creation: Cancel the Schedule creation of a shift that Schedule for an Employee that is Unavailable.  TC-63  Schedule Creation: Schedule creation of a shift that suravailable.  TC-64  Schedule Creation: Cancel cancel the creation of a shift that suravailable.  TC-63  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-63  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-63  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel cancel that they are unavailable.  TC-64  Schedule Creation: Schedule cancel that they are unavailable.  TC-65  Schedule Creation: Schedule cancel that they are unavailable.  TC-66  Attempt to edit a shift to a		Employee Field	without selecting an
TC-58 Schedule Creation: Schedule an Employee that is Available during the time that they are available.  TC-59 Schedule Creation: Schedule a Duplicate Shift exists.  TC-60 Schedule Creation: Schedule an Overlapping Shift that overlaps with an existing shift for that employee.  TC-61 Schedule Creation: Schedule Create a shift for an employee an Employee that is during a time that they are unavailable.  TC-62 Schedule Creation: Cancel Cancel the creation of a shift the Schedule for an Employee for an employee during a time that they are unavailable.  TC-63 Schedule Creation: Schedule Cancel the creation of a shift the Schedule Creation: Schedule Create two shifts for different employees for the Same Time Time TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a			employee.
TC-58  Schedule Creation: Schedule during the time that they are available.  TC-59  Schedule Creation: Schedule create a shift for an employee during the time that they are available.  TC-60  Schedule Creation: Schedule exists.  TC-61  Schedule Creation: Schedule create a shift for an employee an Overlapping Shift that overlaps with an existing shift for that employee.  TC-61  Schedule Creation: Schedule create a shift for an employee an Employee that is during a time that they are unavailable.  TC-62  Schedule Creation: Cancel creation of a shift that is Unavailable that they are unavailable.  TC-63  Schedule Creation: Schedule create a shift for an employee during a time that they are unavailable.  TC-64  Schedule Creation: Cancel create that they are unavailable.  TC-63  Schedule Creation: Schedule create two shifts for different employees for the Same timeslot.  TC-64  Schedule Creation: Edit Shift create a shift to a shift to a	TC-57	Schedule Creation: Schedule	Attempt to create a shift for a
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TC-59 Schedule Creation: Schedule a Duplicate Shift Create a shift that already exists.  TC-60 Schedule Creation: Schedule an Overlapping Shift that overlaps with an existing shift for that employee.  TC-61 Schedule Creation: Schedule an Employee that is Unavailable Unavailable  TC-62 Schedule Creation: Cancel the Schedule Gran Employee that is Unavailable  TC-63 Schedule Creation: Schedule TC-64 Schedule Creation: Schedule TC-65 Cancel the creation of a shift for an employee during a time that they are unavailable.  TC-63 Create two shifts for different employees for the Same Time Time TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a	TC-58	Schedule Creation: Schedule	Create a shift for an employee
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TC-60  Schedule Creation: Schedule an Overlapping Shift that overlaps with an existing shift for that employee.  TC-61  Schedule Creation: Schedule Create a shift for an employee an Employee that is Unavailable unavailable.  TC-62  Schedule Creation: Cancel Cancel the creation of a shift the Schedule for an Employee that is Unavailable that is Unavailable Creation: Schedule Creation: Schedule Creation: Schedule Create two shifts for different employees for the Same Time timeslot.  TC-64  Schedule Creation: Edit Shift Attempt to edit a shift to a	TC-59	Schedule Creation: Schedule	Create a shift that already
an Overlapping Shift that overlaps with an existing shift for that employee.  TC-61 Schedule Creation: Schedule Create a shift for an employee an Employee that is Unavailable unavailable.  TC-62 Schedule Creation: Cancel Cancel the creation of a shift the Schedule for an Employee for an employee during a time that is Unavailable that they are unavailable.  TC-63 Schedule Creation: Schedule Create two shifts for different Two Employees for the Same employees for the same timeslot.  TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a		a Duplicate Shift	exists.
TC-61 Schedule Creation: Schedule Create a shift for an employee an Employee that is Unavailable Unavailable.  TC-62 Schedule Creation: Cancel Cancel the creation of a shift the Schedule for an Employee for an employee during a time that is Unavailable.  TC-63 Schedule Creation: Schedule Create two shifts for different employees for the Same Time timeslot.  TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a	TC-60	Schedule Creation: Schedule	Create a shift for an employee
TC-61  Schedule Creation: Schedule an Employee that is Unavailable  Unavailable  Unavailable  Create a shift for an employee during a time that they are unavailable.  Cancel the creation of a shift the Schedule for an Employee for an employee during a time that is Unavailable  TC-63  Schedule Creation: Schedule Tcreate two shifts for different Two Employees for the Same Time  Time  timeslot.  TC-64  Schedule Creation: Edit Shift  Attempt to edit a shift to a		an Overlapping Shift	that overlaps with an existing
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TC-62  Schedule Creation: Cancel  the Schedule for an Employee that is Unavailable  TC-63  Schedule Creation: Schedule Two Employees for the Same Time  TC-64  Schedule Creation: Edit Shift  Attempt to edit a shift to a		an Employee that is	during a time that they are
the Schedule for an Employee for an employee during a time that is Unavailable that they are unavailable.  TC-63  Schedule Creation: Schedule Create two shifts for different employees for the Same employees for the same timeslot.  TC-64  Schedule Creation: Edit Shift Attempt to edit a shift to a		Unavailable	unavailable.
that is Unavailable that they are unavailable.  TC-63  Schedule Creation: Schedule Create two shifts for different employees for the Same timeslot.  TC-64  Schedule Creation: Edit Shift Attempt to edit a shift to a	TC-62	Schedule Creation: Cancel	Cancel the creation of a shift
TC-63 Schedule Creation: Schedule Two Employees for the Same employees for the same Time timeslot.  TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a		the Schedule for an Employee	for an employee during a time
Two Employees for the Same employees for the same timeslot.  TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a		that is Unavailable	that they are unavailable.
Time timeslot.  TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a	TC-63	Schedule Creation: Schedule	Create two shifts for different
TC-64 Schedule Creation: Edit Shift Attempt to edit a shift to a		Two Employees for the Same	employees for the same
1		Time	timeslot.
	TC-64	Schedule Creation: Edit Shift	Attempt to edit a shift to a
to a Past Date past date.		to a Past Date	past date.
TC-65 Schedule Creation: Attempt to edit a shift to a	TC-65	Schedule Creation:	Attempt to edit a shift to a
Overlapping Edit to an time that overlaps with		Overlapping Edit to an	time that overlaps with
Existing Shift another shift for the same		Existing Shift	another shift for the same
employee.			employee.
TC-66 Schedule Creation: Valid Edit Make a valid edit on a shift	TC-66	Schedule Creation: Valid Edit	Make a valid edit on a shift
to an Existing Shift for an employee.	10 00		

TC-67	Schedule Creation: Delete	Delete a shift for an
	Shift	employee.

#### 2.6.11 Staff Schedule Page

Test Case ID	Title	Description
TC-68	Staff Schedule Page: Display	Visit the staff schedule page
	Employee Schedule	to view the staff user's
		schedule.

# 3. Non-functional Testing

## 3.1 Approach

Non-functional testing will test all the features performance, reliability, security, and portability to ensure the application will work as intended. Testing will be performed manually by a tester following the steps of the test cases outlined in this section.

#### 3.2 Pass/Fail Criteria

Non-functional testing will pass if the tests meet the expected results and postconditions listed in each of the non-functional test cases.

Non-functional testing will fail if the tests do not meet the expected results and postconditions listed in each of the non-functional test cases and will be flagged for review.

## 3.3 Entry / Exit Criteria

This phase of testing will only be entered after the completion of the functional testing phase. This phase will conclude when all test cases have been run and passed.

# 3.4 Suspension / Resumption Criteria

If a test case were to fail, that particular test case will be suspended to allow the team to investigate the cause of the failure. Once the error has been located and fixed testing will resume. Additionally, if we reach our daily limit of reads, writes, and/or deletes to our database set by Firebase, testing will be suspended and resume the following day once the limits have been reset.

## 3.5 Risks / Issues

Since the database will be wiped and repopulated for each test case, a few separate issues can arise. For one, if the database is not populated properly the entire test may "fail" since the expected output is not given. Second, the constant emptying and repopulation of data could cause us to reach our maximum read, write, or delete limit on the database very quickly and delay testing.

## 3.6 Items to be Tested

#### 3.6.1 Non-functional Test Cases

Test Case ID	Title	Description
TC-69	Staff API Request	All Rest API's requests used
	Performance – Restful Server	in allowing staff to
	Application	communicate with the
		application will be processed
		within 3 seconds.
TC-70	Business API Request	All Rest API's requests used
	Performance Restful Server	in allowing businesses to
	Application	communicate with the
		application will be processed
		within 3 seconds.
TC-71	API Performance – Restful	All Rest APIs must be
	Server Application	capable of handling
		concurrent communications
		with at least 100 or more
		concurrent users.
TC-72	Database Server Error	Report meaningful error
	Handling	messages to the user for all
		failed server transactions.

TC-73	Business Account Password	All passwords for business
	Encryption	accounts that are saved in the
		database will be hashed with
		the brcypt algorithm to ensure
		we are securely saving users
		password.
TC-74	Staff Account Password	All passwords for staff
	Encryption	accounts that are saved in the
		database will be hashed with
		the brcypt algorithm to ensure
		we are securely saving users'
		passwords.
TC-75	Website Responsiveness	The website should be
		completely responsive and
		adaptable to any view that a
		user is using to access the
		application, which could be a
		mobile, tablet or desktop
		view.

# 4. Integration Testing

# 4.1 Approach

Integration testing will consist of manually testing all the modules, components and external software utilized in eTimely web application to ensure they work as intended when integrated into our application.

## 4.2 Pass/Fail Criteria

Integration testing will pass if the tests meet the expected results and postconditions listed in each of the integration test cases.

Integration testing will fail if the tests do not meet the expected results and postconditions listed in each of the integration test cases and will be flagged for review.

## 4.3 Entry / Exit Criteria

This phase of testing will only be entered after the completion of the functional testing phase and will conclude when all test cases have been run and passed.

## 4.4 Suspension / Resumption Criteria

If a test case were to fail, that particular test case will be suspended to allow the team to investigate the cause of the failure. Once the error has been located and fixed testing will resume. Additionally, if we reach our daily limit of reads, writes, and/or deletes to our database set by Firebase, testing will be suspended and resume the following day once the limits have been reset.

Additionally, if between all testers, there are 10 or more tests cases that fail we shall suspend testing. This is because having this many failed test cases means there are one or more major issues in the code that are causing the tests to fail. If this is the case, we will resume testing after reviewing the code to find the issue (or issues) and apply any needed fixes.

#### 4.5 Risks / Issues

Since the database will be wiped and repopulated for each test case, a few separate issues can arise. For one, if the database is not populated properly the entire test may "fail" since the expected output is not given. Second, the constant emptying and repopulation of data could cause us to reach our maximum read, write, or delete limit on the database very quickly and delay testing.

### 4.6 Items to be Tested

### 4.6.1 Integration Test

Test Case ID	Title	Description
TC-76	Nodemailer – Sending Emails	Attempt to send mock emails
		using the nodemailer package

		to ensure email integration
		works as expected with the
		eTimely web application.
TC-77	Generating JWT Access	Attempt to login into the
	Token for Authentication -	eTimely application and
	Successful	verify that JWT generates an
		access token that will be sent
TC-78	Reset Password Expired JWT	Attempt to reset password
	Access Link - Successful	with an expired reset
		password JWT link

# 5. System Testing

## 5.1 Approach

System testing will include manual tests of all functionalities in one session using specified parameters. Additionally, the database should be empty at the beginning of testing but should not be cleared over the course of testing, previous testing phases. This is to ensure that the system performs as expected in a less controlled environment.

## 5.2 Pass/Fail Criteria

System testing will pass if the tests meet the expected results and postconditions listed in each of the system test cases

System testing will fail if the tests does not meet the expected results and postconditions listed in each of the system test cases and will be flagged for review.

## 5.3 Entry / Exit Criteria

This testing phase will only be complete when all tests can be run consecutively without an error occurring or a test failing.

# 5.4 Suspension / Resumption Criteria

Since the purpose of system testing is to test all functionalities in one go, testing will be suspended when a single test case fails. This is to allow the team to investigate the cause of this failure. Once the error has been located and fixed, testing shall resume.

Additionally, if we reach our daily limit of reads, writes, and/or deletes to our database set by Firebase, testing shall be suspended and resumed the following day once the limits have been reset.

#### 5.5 Risks / Issues

Since the database will be wiped and repopulated for each test case, a few separate issues can arise. For one, if the database is not populated properly the entire test may "fail" since the expected output is not given. Second, the constant emptying and repopulation of data could cause us to reach our maximum read, write, or delete limit on the database very quickly and delay testing.

#### 5.6 Execution Path

#### 5.6.1 Default User

Test Case ID	Title	Parameters	
TC-79	Default User: About Us		
TC-80	Default User: Terms and		
	Conditions		
TC-81	Default User: Contact Us	Name:	John Doe
		Email:	etimelyTest@gmail.com
		Message:	Can I access this website
			on my phone?

#### 5.6.2 Business User First Login

Test Case ID	Title	Parameters	3
TC-82	Business User: Registration	Company	Target
		Name:	

		Email:	etimelyTest@gmail.com
		Password:	Test1234
TC-83	Business User: Verification		
TC-84	Business User: Reset Password	Email:	etimelyTest@gmail.com
		New	Testing12345
		Password:	
TC-85	Business User: Login	Email:	etimelyTest@gmail.com
		Password:	Testing12345
TC-86	Business User: Dashboard	Title:	News for Friday
	Announcement	Details:	We will have a day off
			on Friday.
TC-87	Business User: Create Role	Name:	Waiter
TC-88	Business User: Edit Role	Name:	Engineer
TC-89	Business User: Delete Role		
TC-90	Business User: Invite Staff Member	First	Dave
		Name:	
		Last	Smith
		Name: Email:	etimelyStaff@gmail.com
		Role:	Manager
TC-91	Business User: Assign Role		
TC-92	Business User: Team Search	Search	Smith
		One:	
		Search Two:	xyz
TC-93	Business User: Filter by Role		
TC-94	Business User: Schedule		
	Unavailable Employee		
TC-95	Business User: Edit Shift		
TC-96	Business User: Create an	Title:	Tomorrow
	Announcement	Details:	We start at 10:00am
			tomorrow.

TC-97	Business User: View		
	Announcements		
TC-98	Business User: Update Profile	Company	Walmart
		Name:	
		Password:	Testing123
TC-99	Business User: Logout		

## 5.6.3 Staff User

Test Case ID	Title	Parameters	
TC-100	Staff User: Sign Up	Password:	Test1234
TC-101	Staff User: Login	Email:	etimelyStaff@gmail.com
		Password:	Test1234
TC-102	Staff User:		
	Dashboard		
	Information		
TC-103	Staff User: View		
	Schedule		
TC-104	Staff User: Add		
	Availability		
TC-105	Staff User: Edit		
	Availability		
TC-106	Staff User: Delete		
	Availability		
TC-107	Staff User: View		
	Announcements		
TC-108	Staff User: Update	First Name:	David
	Profile	Last Name:	Smiths
		Password:	Testing123
TC-109	Staff User: Logout		1

## 5.6.4 Business User Second Login

Test Case ID	Title	Parameters	
TC-85	Business User: Login	Email:	etimelyTest@gmail.com
		Password:	Testing12345
TC-110	Business User: View		
	New Availability		
TC-111	Business User: View		
	Team Availability		
TC-112	Business User:		
	Schedule Available		
	Employee		
TC-113	Business User: Delete		
	Shift		
TC-114	Business User: Delete		
	Announcement		
TC-115	Business User:		
	Terminate Staff		
TC-99	Business User:		
	Logout		

# **6. Functional Test Cases**

# 6.1 Business Sign-Up

Test Case ID: TC-1			Test Case Name: Business Sign Up	
Created By: Samia Chowdhury		hury	Date Created: 4/1/2022	
Last Updated By: Chris Gumieny		ımieny	Last Revision Date: 4/15/2022	
Priority	High			
Preconditions	•	DBS-00		
	•	Firestore is open in another window.		
	•	• User is on the business sign up page.		

Postconditions	User has created an eTimely business account.
	• A verification email is sent to the user's email address used to
	create a business account.
	• The business account information is saved to the "BusinessUser"
	collection in the database.
	Five default roles are added and linked to the business account in
	the "Roles" collection of the database.
Test Steps	<ol> <li>Enter "eTimelyTest" in the company name field.</li> </ol>
	2. Enter "etimelyTest@gmail.com" in the company email field.
	3. Enter "Pass1234" in the password and confirm password field.
	4. Check the "Agree to Terms and Conditions" checkbox.
	5. Click "Create Account" to create a new business account.
<b>Expected Results</b>	• A business account is created, and the user is prompted to sign in.
	The user receives an account verification email in their email
	address to verify their account.

Test Case ID: TC-2	2	Test Case Name: Business Sign Up with	
		Existing Email	
Created By: Samia	Chowdhury	Date Created: 4/2/2022	
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022	
Priority	High		
Preconditions	DBS-00 and DBS-01		
	• User is on the business sign up page.		
Postconditions	User is unable to crea	te a business account.	
Test Steps	Enter "eTimelyTest" in the company name field.		
	2. Enter "etimelyTest@gmail.com" in the company email field.		
	3. Enter "Pass1234" in the password and confirm password field.		
	4. Check the "Agree to Terms and Conditions" checkbox.		
	5. Click "Create Account" to create a new business account.		

<b>Expected Results</b>	•	An error message displays saying, "Email is already in use."
	•	The user is prompted to use a different email that isn't already in
		use.
	•	A business account cannot be created with an existing email
		address.

Test Case ID: TC-3	3		Test Case Name: Business Sign Up with
			Different Password
Created By: Samia	Chowdl	nury	Date Created: 4/2/2022
Last Updated By: (	Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High		
Preconditions	•	DBS-00	
	•	User is on the	business sign up page.
Postconditions	User is unable to create a business account.		
Test Steps	Enter "eTimelyTest" in the company name field.		
	2. Enter "etimelyTest@gmail.com" in the company email field.		
	3. Enter "Pass1234" in the password field.		
	4. Enter "Pass12345" in the confirm password field.		
	5. Check the "Agree to Terms and Conditions" checkbox.		
	6. Click "Create Account" to create a business account.		
<b>Expected Results</b>	An error message displays saying, "Passwords must match."		
	User is prompted to enter password that matches with the confirm		
		password.	

Test Case ID: TC-4		<b>Test Case Name:</b> Business Sign Up without a
		Company Name
Created By: Samia Chowdhury		Date Created: 4/2/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	

Preconditions	• DBS-00		
	User is on the business sign up page.		
Postconditions	User is unable to create a business account.		
Test Steps	1. Do not enter a company name in the company name field.		
	2. Enter "Pass1234" in the password field.		
	3. Enter "Pass1234" in the confirm password field.		
	4. Check the "Agree to Terms and Conditions" checkbox.		
	5. Click "Create Account" to create a business account.		
<b>Expected Results</b>	An error displays saying, "Company name is required."		
	The user is prompted to enter a company name in the company		
	name field.		

Test Case ID: TC-5	Test Case Name: Business Sign Up without a	
	Company Email	
Created By: Samia	nowdhury Date Created: 4/2/2022	
Last Updated By: (	ris Gumieny Last Revision Date: 4/15/2022	
Priority	ligh	
Preconditions	• DBS-00	
	• User is on the business sign up page.	
Postconditions	Ser is unable to create a business account.	
Test Steps	1. Enter "Walmart" in the company name field.	
	2. Do not enter an email address in the company email field.	
	3. Enter "Test1234" in the password and confirm password field.	
	4. Check the "Agree to Terms and Conditions" checkbox.	
	5. Click "Create Account" to create a business account.	
<b>Expected Results</b>	An error message displays saying, "Company email is required."	
	• The user is prompted to enter a company email in the company	
	email field.	

Test Case ID: TC-118			Test Case Name: Business Sign Up without
			Terms and Conditions
Created By: Matt K	Corte		Date Created: 4/3/2022
Last Updated By: (	Chris G	umieny	Last Revision Date: 4/15/2022
Priority	High		
Preconditions	•	DBS-00	
	•	User is on the	business sign up page.
Postconditions	User i	s unable to creat	te a business account.
Test Steps	1.	Enter "eTimely	yTest" in the company name field.
	2.	Enter "etimely	Test@gmail.com" in the company email field.
	3.	Enter "Pass123	34" in the password field.
	4.	Enter "Pass123	34" in the confirm password field.
	5.	Do not check t	he "Agree to Terms and Conditions" checkbox.
	6.	Click "Create	Account" to create a business account.
<b>Expected Results</b>	•	An error messa	age displays saying, "Use must agree to the terms
		and conditions	.,,
	•	User is prompt	ted to check the "Agree to Terms and Conditions"
		checkbox.	

# 6.2 Business Login

Test Case ID: TC-6			Test Case Name: Business Login: Success
Created By: Samia Chowdhury		hury	Date Created: 4/1/2022
Last Updated By: Chris Gumieny		ımieny	Last Revision Date: 4/15/2022
Priority	High		
Preconditions	DBS-00 and DBS-01		
	•	The user is on	the home page.
Postconditions	The user is signed into the application successfully.		
Test Steps	1.	Navigate to the	e login page by clicking on the "Sign In" button.
	2.	Enter "etimely	Test@gmail.com" in the company email field.

	3. Enter "Pass1234" in the password field.		
	4. Click "Login" to sign into a business account.		
<b>Expected Results</b>	The user is signed in and redirected to the business dashboard.		

Test Case ID: TC-7			Test Case Name: Business Login Without
			Verified Account
Created By: Samia	Chowd	hury	Date Created: 4/2/2022
Last Updated By: (	Chris G	umieny	Last Revision Date: 4/15/2022
Priority	High		
Preconditions	•	DBS-00 and D	DBS-03
	•	The user is on	the home page.
Postconditions	The us	ser is unable to s	sign into the application.
Test Steps	1.	Navigate to the	e login page by clicking on the "Sign In" button.
	2.	Enter "etimely	Test@gmail.com" in the email field.
	3.	Enter "Pass123	34" in the password field.
	4.	Click "Login"	to sign into the application.
<b>Expected Results</b>	•	An error messa	age displays saying, "Account not verified, please
		check your em	ail for verification link."
	•	The user is pro	ompted to go to their email account and click on
		verification lin	k to verify their account.
	•	The user is una	able to sign into the application.

Test Case ID: TC-116		Test Case Name: Business Login Without an
		Email
Created By: Samia Chowdhury		Date Created: 4/2/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	DBS-00 and DBS-01	
	• The user is on	the home page.

Postconditions	The user is unable to sign into the application.		
Test Steps	1. Navigate to the login page by clicking on the "Sign In" button.		
	2. Do not enter an email in the email field.		
	3. Enter "Pass1234" in the password field.		
	4. Click "Login" to sign into the application.		
<b>Expected Results</b>	An error message displays saying, "Email is required."		
	The user is prompted to enter an email to be able to sign into the		
	application.		
	The user is unable to sign into the application.		

Test Case ID: TC-117			Test Case Name: Business Login without a	
			Password	
Created By: Samia	Chowd	hury	Date Created: 4/2/2022	
Last Updated By: (	Chris G	ımieny	Last Revision Date: 4/15/2022	
Priority	High			
Preconditions	•	DBS-00 and D	PBS-01	
	•	The user is on	the home page.	
Postconditions	The us	ser is unable to s	sign into the application.	
Test Steps	1.	Navigate to the	e login page by clicking on the "Sign In" button.	
	2.	2. Enter "etimelyTest@gmail.com" in the email field.		
	3.	3. Do not enter a password in the password field.		
	4.	4. Click "Login" to sign into the application.		
<b>Expected Results</b>	An error message displays saying, "Password is required."			
	User is prompted to enter a password in the password field.			
	User is unable to sign into the application.			

# 6.3 Business Account Verification

Test Case ID: TC-10		Test Case Name: Verify Business Account:
		Successful
Created By: Samia	Chowdhury	Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	• DBS-	-00 and DBS-03
	• Firest	tore is open in another window.
Postconditions	• The "i	isVerified" field in the business user document in the
	databa	ase is set to "true" which verifies the business account.
	• The u	ser can sign into the application.
Test Steps	1. Open	the verification email of sent to the email address entered in
	DBS-	-03.
	2. Opens	s verification link within email.
<b>Expected Results</b>	• A suc	ccess page is shown after verification link is clicked.
	• User o	can sign into the application.

# 6.4 Staff Signup

Test Case ID: TC-119		Test Case Name: Staff Invite Sent
Created By: Matt Korte		Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	DBS-00 and I	DBS-01
	• Firestore is op	en in another window.
	Signed into ac	count created in DBS-01 and on team management
	page.	

Postconditions	A staff account is created with the data entered as described in the test			
	steps below. This information is saved in the database in the "StaffUser"			
	collection.			
Test Steps	1. Press the "Invite Staff Member" button.			
	2. Enter "Dave" in the first name field.			
	3. Enter "Smith" in the last name field.			
	4. Enter "etimelycsc4996@gmail.com" in the email field.			
	5. Select "Cashier" from the role dropdown.			
	6. Press the "Send" button.			
<b>Expected Results</b>	Confirmation message is shown on screen displaying invitation			
	has been sent successfully.			
	The page is refreshed after closing the confirmation message and			
	Dave Smith is visible on the table, with the account status set to			
	"Pending."			
	Invitation email is sent to the invited staff email address.			

Test Case ID: TC-11		Test Case Name: Staff Sign Up	
Created By: Samia Chowdhury		Date Created: 4/2/2022	
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022	
Priority	High		
Preconditions	DBS-00 and D	PBS-01	
	Firestore is open in another window.		
	Follow the step	• Follow the steps in TC-117	
Postconditions	The password for the staff account is hashed and saved to the		
	database.		
	• The "Account Status" field in the database is set to "Active" for		
	this staff account.		
Test Steps	1. From the invit	ation email, click "Set your password."	

	2.	Enter "Pass1234" into the password and confirm password fields.
	3.	Click the check box next to the "I agree to the Terms and
		Conditions."
	4.	Press "Set Password" button.
<b>Expected Results</b>	User is	redirected to login page and able to login with the new password.

# 6.5 Staff Login

Test Case ID: TC-12		Test Case Name: Staff Login
Created By: Samia Chowdhury		Date Created: 4/1/2022
Last Updated By:	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	• DBS-00, DB	S-01 and DBS-02
	• The user is on the home page.	
Postconditions	User is signed into the application successfully.	
Test Steps	1. Navigate to the login page by clicking the "Sign In" button.	
	2. Enter "etimelycsc4996@gmail.com" in the email field.	
	3. Enter "Pass1234" in the password field.	
	4. Click "Login" to sign into staff account.	
<b>Expected Results</b>	The staff user is sign	ned in and redirected to the staff dashboard.

# 6.6 Reset Password

Test Case ID: TC-13		<b>Test Case Name:</b> Reset Password: Normal Flow
Created By: Samia Chowdhury		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	DBS-00 and DBS-01	
	• User is on the reset password page.	

Postconditions	The password is hashed and saved into the database for this user.
Test Steps	1. Enter "etimelyTest@gmail.com" in the email field.
	2. Click the "Send Reset Link" button.
	3. Open the link in the email sent by the system that will redirect to
	a page to reset the password. Enter "NewPass1234" in both the
	password and confirm password fields.
	4. User clicks "Change Password."
<b>Expected Results</b>	A success message display saying, "Password changed
	successfully."
	User is redirected to login screen.
	"Password1" is now set as the password for this account.

Test Case ID: TC-14		<b>Test Case Name:</b> Reset Password: Invalid Email	
Created By: Matt Korte		Date Created: 4/3/2022	
Last Updated By: (	Caleb Obi	Last Revision Date: 4/5/2022	
Priority	Medium		
Preconditions	• DBS-00 and D	DBS-01	
	• User is on the	reset password page.	
Postconditions	Password won't be changed.		
	• Reset password link won't be sent.		
Test Steps	1. Enter "etimelyNULLTest@gmail.com" in the email field.		
	2. Click the "Send Reset Link" button.		
<b>Expected Results</b>	An error message displays saying, "Account does not exist."		
	User is prompted to enter an email address associated with a		
	registered account.		
	Reset password link won't be sent to the email address.		

# 6.7 Availability Confirmation

Test Case ID: TC-15		Test Case Name: Availability Confirmation
Created By: Matt K	Corte	Date Created: 3/31/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00, DBS-	-01, DBS-02 and DBS-04
	• The user is sig	ned into the account created in DBS-01.
	Firestore is open	en in another window.
Postconditions	The "isApproved" fiel	d in each of availability instance viewed in the
	"Availability" collecti	on is set to true.
Test Steps	1. Navigate to business dashboard by clicking the "Dashboard" tab	
	in the sidebar.	
	2. Click the "View" button next to "Dave Smith."	
	3. Once the dialog box opens, verify that the information shown	
	matches what was entered in DBS-04 and is listed in	
	chronological	order.
	4. Close the dialo	og box.
	5. Refresh page and verify that the staff user's name and the "View"	
	button are not on the business dashboard any longer.	
<b>Expected Results</b>	The Updates and Alerts section displays the "Nothing to see here"	
	message.	

# 6.8 Announcements

Test Case ID: TC-16		Test Case Name: Announcement Creation	
Created By: Matt Korte		Date Created: 3/31/2022	
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022	
Priority	Medium		
Preconditions	DBS-00 and DBS-01		
	Firestore is open in another window.		

	The user is signed into the account created in DBS-01		
Postconditions	The ne	ew announcement is saved to the database in the "Announcement"	
	collection.		
Test Steps	1.	Navigate to the "Create Announcements" page by clicking on the	
		"Announcements" tab and then clicking the "Create	
		Announcements" button in the sidebar.	
	2. Enter "This is an announcement" in the title field.		
	3.	3. Enter "This announcement is being written as a test to ensure that	
	this functionality is working as expected" details section.		
	4. Press the "Send" button.		
<b>Expected Results</b>	•	Announcements will be able to be viewed by the business user as	
		well as all associated staff user on the announcement view page.	
	The page is refreshed, and the form entries are cleared.		

Test Case ID: TC-17			Test Case Name: Announcement Creation: Title
			too Short
Created By: Matt K	Corte		Date Created: 3/31/2022
Last Updated By: N	Matt Ko	rte	Last Revision Date: 4/3/2022
Priority	Mediu	m	
Preconditions	•	DBS-00 and D	PBS-01
	•	• The user is signed into the account created in DBS-01	
Postconditions	N/A		
Test Steps	1.	Navigate to the "Create Announcements" page by clicking on the	
		"Announcements" tab and then clicking the "Create	
		Announcements" button in the sidebar.	
	2.	Enter "Hi" in the title field.	
	3.	Enter "This announcement is being written as a test to ensure that	
		this functionality is working as expected."	
	4. Press the "Send" button.		

<b>Expected Results</b>	•	• There is an on-screen error message that says, "Title must at least	
		be at least 5 characters."	
	The form is not submitted, and the announcement is not sent to the		
		database.	

Test Case ID: TC-18			Test Case Name: Announcement Creation: Title	
			too Long	
Created By: Matt K	Corte		Date Created: 3/31/2022	
Last Updated By: (	Chris G	umieny	Last Revision Date: 4/15/2022	
Priority	Mediu	m		
Preconditions	•	DBS-00 and D	PBS-01	
	•	The user is sign	ned into the account created in DBS-01.	
Postconditions	N/A			
Test Steps	1.	Navigate to the	e "Create Announcements" page by clicking on the	
		"Announcements" tab and then clicking the "Create		
		Announcements" button in the sidebar.		
	2.	Enter "We are testing to ensure that a title over 50 characters will		
		not work" in the title field.		
	3.	Enter "This announcement is being written as a test to ensure that		
		this functionality is working as expected."		
	4.	Press the "Send" button.		
<b>Expected Results</b>	•	There is an on-screen error message that says, "Title can be at		
		most 50 characters."		
	•	The form is not submitted, and the announcement is not sent to		
		the database.		

Test Case ID: TC-19	Test Case Name: Announcement Creation:
	Details too Short
Created By: Matt Korte	Date Created: 3/31/2022

Last Updated By: (	Chris Gu	umieny Last Revision Date: 4/15/2022		
Priority	Mediu	m		
Preconditions	•	DBS-00 and DBS-01		
	•	The user is signed into the account created in DBS-01		
Postconditions	N/A			
Test Steps	1.	Navigate to the "Create Announcements" page by clicking on the		
		"Announcements" tab and then clicking the "Create		
		Announcements" button in the sidebar.		
	2.	Enter "Test Announcement TC-19" in the title field.		
	3.	Enter "Testing."		
	4.	Press the "Send" button.		
<b>Expected Results</b>	•	There is an on-screen error message that says, "Title must be at		
		least 10 characters."		
	•	The form is not submitted, and the announcement is not sent to		
		the database.		

Test Case ID: TC-2	20	Test Case Name: Announcement Creation:
		Details too Long
Created By: Matt Korte		<b>Date Created:</b> 3/31/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and	1 DBS-01
	• The user is	signed into the account created in DBS-01
Postconditions	N/A	
Test Steps	1. Navigate to	the business dashboard by clicking the "Dashboard"
	tab on the si	idebar.
	2. Enter "Anno	ouncement" in the title field.
	3. Enter "Hello	o how are you doing today?" into the details box 14
	times (inclu	ding the space on the after the question mark).

	4. Press	the "Send" button.
<b>Expected Results</b>	• There	is an on-screen error message that says, "Details can be at
	most	500 characters."
	• The fo	orm is not submitted, and the announcement is not sent to
	the da	tabase.

Test Case ID: TC-21			Test Case Name: Dashboard Announcement	
			Creation	
Created By: Matt K	Corte		Date Created: 3/31/2022	
Last Updated By: 0	Chris G	umieny	Last Revision Date: 4/15/2022	
Priority	Mediu	m		
Preconditions	•	DBS-00 and D	PBS-01	
	•	The user is sig	ned into the account created in DBS-01.	
	•	Firestore is ope	en in another window.	
Postconditions	The ne	ew announcemen	nt is saved to the database in the "Announcement"	
	collection.			
Test Steps	1.	Navigate to the	business dashboard by clicking the "Dashboard"	
		tab on the side	bar.	
	2.	Enter "This is an announcement" in the title field.		
	3.	Enter "This announcement is being written as a test to ensure that		
		this functionality is working as expected."		
	4.	Press the "Send" button.		
<b>Expected Results</b>	•	The announcer	ment is added to the database.	
	•	The announcer	ment should be able to be viewed by the business	
		user as well as	all associated staff user on the announcement view	
		page.		
	•	The page is ref	Freshed, and the form entries are cleared.	

Test Case ID: TC-22			Test Case Name: Dashboard Announcement	
			Creation: Title too Short	
Created By: Matt K	Corte		Date Created: 3/31/2022	
Last Updated By: (	Chris G	umieny	Last Revision Date: 4/15/2022	
Priority	Mediu	ım		
Preconditions	•	DBS-00 and D	PBS-01	
	•	The user is sign	ned into the account created in DBS-01.	
Postconditions	N/A			
Test Steps	1.	Navigate to the	business dashboard by clicking the "Dashboard"	
		tab in the sideb	par.	
	2.	Enter "We are testing to ensure that a title over 50 characters will		
		not work" in the title field.		
	3.	Enter "This announcement is being written as a test to ensure that		
		this functionality is working as expected."		
	4.	Press the "Send" button.		
<b>Expected Results</b>	•	There is an on-	screen error message that says, "Title must at least	
		be at least 5 ch	aracters."	
	•	The form is no	t submitted, and the announcement is not sent to	
		the database.		

Test Case ID: TC-23		Test Case Name: Dashboard Announcement
		Creation: Title too Long
Created By: Matt Korte		Date Created: 3/31/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and DBS-01	
	• The user is signed into the account created in DBS-01.	
Postconditions	N/A	

Test Steps	1. Navigate to the business dashboard by clicking the "Dashboard"
	tab in the sidebar.
	2. Enter "We are testing to ensure that a title over 50 characters will
	not work" in the title field.
	3. Enter "This announcement is being written as a test to ensure that
	this functionality is working as expected."
	4. Press the "Send" button.
<b>Expected Results</b>	There is an on-screen error message that says, "Title can be at
	most 50 characters."
	• The form is not submitted, and the announcement is not sent to
	the database.

Test Case ID: TC-24			Test Case Name: Dashboard Announcement	
			Creation: Details too Short	
Created By: Matt K	Corte		Date Created: 3/31/2022	
Last Updated By:	Chris Gu	ımieny	Last Revision Date: 4/15/2022	
Priority	Mediu	m		
Preconditions	•	DBS-00 and D	BS-01	
	•	The user is sig	ned into the account created in DBS-01.	
Postconditions	N/A			
Test Steps	1.	Navigate to the business dashboard by clicking the "Dashboard"		
		tab in the sidebar.		
	2.	Enter "We are testing to ensure that a title over 50 characters will		
		not work" in the title field.		
	3.	Enter "Testing".		
	4.	Press the "Send" button.		
<b>Expected Results</b>	•	There is an on-	screen error message that says, "Title must be at	
		least 10 characters."		

•	The form is not submitted, and the announcement is not sent to
	the database.

Test Case ID: TC-25			Test Case Name: Dashboard Announcement	
			Creation: Details too Long	
Created By: Matt K	Corte		Date Created: 3/31/2022	
Last Updated By: (	Chris Gu	ımieny	Last Revision Date: 4/15/2022	
Priority	Mediu	m		
Preconditions	•	DBS-00 and D	PBS-01	
	•	The user is sign	ned into the account created in DBS-01.	
Postconditions	N/A			
Test Steps	1.	Navigate to the	e business dashboard by clicking the "Dashboard"	
		tab in the sideb	oar.	
	2.	Enter "Announcement" in the title field.		
	3.	Enter "Hello how are you doing today?" into the details box 14		
		times (including the space on the after the question mark).		
	4.	Press the "Seno	d" button.	
<b>Expected Results</b>	•	There is an on-	screen error message that says, "Details can be at	
		most 500 chara	acters."	
	•	The form is no	t submitted, and the announcement is not sent to	
		the database.		

Test Case ID: TC-26		Test Case Name: Announcement Deletion		
Created By: Matt Korte		Date Created: 4/1/2022		
Last Updated By:	Chris Gumieny	Last Revision Date: 4/15/2022		
Priority	Medium			
Preconditions	DBS-00 and D	9BS-01		
	• The user is sign	• The user is signed into the account created in DBS-01.		
	Firestore is open	en in another window.		

	• Follow the steps in TC-16.		
Postconditions	The announcement created in TC-16 is removed from the		
	"Announcement" collection in the database.		
Test Steps	1. Navigate to the "View Announcements" page by clicking the		
	"Announcements" tab and then clicking the "View		
	Announcements" button in the sidebar.		
	2. Press the "delete" button next to the announcement made in TC-		
	16.		
	3. Press the "Yes, delete it!" button in the resulting dialog box.		
<b>Expected Results</b>	Confirmation message is shown on screen.		
	The page is refreshed and the announcement that was deleted is		
	now gone.		

Test Case ID: TC-27		Test Case Name: Business Announcement
		Viewing
Created By: Matt K	Korte	Date Created: 4/1/2022
Last Updated By:	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and I	DBS-01
	• The user is sign	gned into account created in DBS-01.
	• Follow the ste	eps in TC-16.
Postconditions	N/A	
Test Steps	1. Navigate to the	e "View Announcements" page by clicking the
	"Announceme	ents" tab and then clicking the "View
	Announcements" button in the sidebar.	
	2. Ensure that th	e announcement created in TC-16 is visible. This
	includes the ti	tle entered, and details as well as the time it was
	entered.	
<b>Expected Results</b>	The announcement created in TC-16 is visible on the page.	

Test Case ID: TC-28			Test Case Name: Staff Announcement Viewing
Created By: Matt Korte			Date Created: 4/1/2022
Last Updated By: (	Chris G	ımieny	Last Revision Date: 4/15/2022
Priority	Mediu	m	
Preconditions	•	DBS-00, DBS	-01 and DBS-02
	•	The user is sig	ned into account created in DBS-02.
	•	Follow the step	os in TC-16.
Postconditions	N/A		
Test Steps	1.	Navigate to the	e "View Announcements" page by clicking the
		"Announcement	nts" tab and then clicking the "View
	Announcements" button in the sidebar.		
	2.	Ensure that the	announcement created in TC-16 is visible. This
		includes the tit	le entered, and details as well as the time it was
		entered.	
<b>Expected Results</b>	The ar	nouncement cre	eated in TC-16 is visible on the page.

#### 6.9 Roles

Test Case ID: TC-2	29	Test Case Name: New Role Creation
Created By: Matt K	Corte	Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and D	PBS-01
	• The user is sig	ned into account created in DBS-01.
	• Firestore is ope	en in another window.
Postconditions	The role is added to the "Roles" collection in the database.	
Test Steps	1. Navigate to the	e "Role Management" page by clicking the "Team"
	tab and then cl	icking the "Team Roles" button in the sidebar.
	2. Enter "Waitres	ss" into the create role text box.
	3. Press the "Cres	ate" button.

<b>Expected Results</b>	Confirmation message is shown on screen.
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Test Case ID: TC-3	60	Test Case Name: Duplicate Business Role
		Creation
Created By: Matt K	Corte	Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and D	PBS-01
	• The user is sig	ned into account created in DBS-01.
	Firestore is open	en in another window.
Postconditions	The role is not saved to the database.	
Test Steps	Navigate to the	e "Role Management" page by clicking the "Team"
	tab and then cl	icking the "Team Roles" button in the sidebar.
	2. Perform steps of TC-29.	
	3. Close confirma	ation message and enter "Waitress" into the create
	role text box a	gain.
	4. Press the "Create" button.	
<b>Expected Results</b>	An error messa	age is shown on screen.

Test Case ID: TC-31		Test Case Name: Edit Role: Success
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and D	PBS-01
	Signed into according to according to the second seco	count created in DBS-01.
	Firestore is open in another window.	
Postconditions	The role name has been updated in the "Roles" collection of the	
	database.	

Test Steps	1. Navigate to the "Role Management" page by clicking the "Team"
	tab and then clicking the "Team Roles" button in the sidebar.
	2. Press the "edit" button next to the pre-created "Cashier" role.
	3. Enter "Pizza Chef" into the resulting text box and press the
	"Save" button.
<b>Expected Results</b>	Confirmation message is shown on screen.

Test Case ID: TC-32		Test Case Name: Edit Role: Duplicate
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and D	PBS-01
	• The user is sig	ned into account created in DBS-01.
	Firestore is open	en in another window.
Postconditions	The role is not updated	d in the "Roles" collection of the database.
Test Steps	1. Navigate to the	e "Role Management" page by clicking the "Team"
	tab and then cl	icking the "Team Roles" button in the sidebar.
	2. Press the "edit"	"button next to the pre-created "Cashier" role.
	3. Enter "Tech Su	apport" into the resulting text box and press the
	"save" button.	
<b>Expected Results</b>	An error message is shown on screen.	

Test Case ID: TC-33		Test Case Name: Delete Role
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00 and DBS-01	
	• The user is signed into account created in DBS-01.	
	Firestore is open	en in another window.

Postconditions	The role is removed from the "Roles" collection in the database.	
Test Steps	1. Navigate to the "Role Management" page by clicking the "Team"	
	tab and then clicking the "Team Roles" button in the sidebar.	
	2. Press the "delete" button next to the pre-created "Cashier" role.	
	3. Press the "Yes, delete role!" in the resulting dialog box.	
<b>Expected Results</b>	An error message is shown on screen.	
	• The current page is refreshed, and the "Cashier" role is no longer	
	on screen.	

Test Case ID: TC-3	34	Test Case Name: Staff Member Role Change
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• DBS-00, DBS	-01 and DBS-02
	• The user is sig	ned into account created in DBS-01.
	Firestore is open	en in another window.
Postconditions	The "roleId" field for	the designated role's document in the "Roles"
	collection is updated i	n the database.
Test Steps	1. Navigate to the	e "Team Management" page by clicking the
	"Team" tab an	d then clicking the "Team Management" button in
	the sidebar.	
	2. Press the "Edit" button next to the staff member's name.	
	3. Select the "Cu	stomer Service" button in the resulting dialog box
	4. Press the "Sav	e" button.
<b>Expected Results</b>	Confirmation message	e is shown on screen.

## 6.10 User Logout

Test Case ID: TC-35	Test Case Name: Business Logout
Created By: Matt Korte	Date Created: 4/1/2022

Last Updated By: I	Matt Korte	Last Revision Date: 4/3/2022
Priority	Medium	
Preconditions	DBS-00 and D	BS-01
	• The user is sign	ned into account created in DBS-01.
Postconditions	The user is signed out and cannot access any pages that require signing	
	in.	
Test Steps	1. Be on any screen with the app bar.	
	2. Press the user image icon on the top right.	
	3. Press "Logout".	
	4. Press "Yes, log	gout" button in the resulting dialog box.
<b>Expected Results</b>	User is signed out and taken to the home page	

Test Case ID: TC-36		Test Case Name: Staff Logout
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• DBS-00. DBS-	-01 and DBS-02
	Signed into acc	count created in DBS-02.
Postconditions	The user is signed out and cannot access any pages that require signing	
	in.	
Test Steps	1. Be on any scre	en with the app bar.
	2. Press the user image icon on the top right.	
	3. Press "Logout".	
	4. Press "Yes, logout" button in the resulting dialog box.	
<b>Expected Results</b>	User is signed out and taken to the home page	

## 6.11 Profile Updates

Test Case ID: TC-37	Test Case Name: Business Name Update
Created By: Matt Korte	Date Created: 4/1/2022

Last Updated By: (	hris Gumieny Last Revision Date: 4/15/2022	
Priority	Medium	
Preconditions	• DBS-00 and DBS-01	
	• The user is signed into the account created in DBS-01 created.	
	• Firestore is open in another window.	
Postconditions	The company name is changed in the designated document in the	
	"BusinessUser" collection of the database.	
Test Steps	1. Navigate to the "Business Profile" page by clicking on the user	
	image icon in the top right of the window and then clicking	
	"Profile" in the dropdown.	
	2. Change text in business name field to "White Castle".	
	3. Enter the "Test1234" in the password and confirm password	
	fields.	
	4. Press the "Save" button.	
<b>Expected Results</b>	Conformation message should be shown.	
	• Name business name has now changed to "White Castle".	

Test Case ID: TC-38		Test Case Name: Staff Name Update
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00, DBS-01 and DBS-02	
	• The user is sig	ned into the account created in DBS-02.
	Firestore is open	en in another window.
Postconditions	The staff name is updated in the designated document in the "StaffUser"	
	collection of the database.	
Test Steps	1. Navigate to the "Staff Profile" page by clicking on the user image	
	icon in the top right of the window and then clicking "Profile" in	
	the dropdown.	

	2. Change first name field to "Randy".
	3. Change last name field to "Johnson".
	4. Enter the account password into the password and confirm
	password fields.
	5. Press the "Save" button.
<b>Expected Results</b>	Confirmation message should be shown.
	• Account info will be updated to the values entered steps 2 and 3.

#### 6.12 Contact Us

Test Case ID: TC-39		Test Case Name: Contact Us: Success
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	The user is on	the contact us page.
	• Firestore is op	en in another window.
Postconditions	• The user's me	ssage is sent to etimelycsc4996@gmail.com.
	• The user's mes	ssage is also saved in the "ContactUs" collection of
	the database.	
Test Steps	1. Enter "John D	oe" into the name field.
	2. Enter "testing(	@gmail.com" in the email field.
	3. Enter "What are the services that you provide?" in the message	
	field.	
	4. Press the send button.	
<b>Expected Results</b>	A confirmation message is shown to alert the user their message was	
	sent.	

Test Case ID: TC-40	Test Case Name: Contact Us: Empty Fields
Created By: Matt Korte	Date Created: 4/1/2022

Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	The user is on the contact us page.	
Postconditions	Each field should have an error message below it saying to enter something in that field.	
Test Steps	<ol> <li>Leave each field empty.</li> <li>Press the send button.</li> </ol>	
<b>Expected Results</b>	The form is not submitted, and the message is not sent.	

Test Case ID: TC-41			Test Case Name: Contact Us: Invalid Email
			Field
Created By: Matt K	Corte		Date Created: 4/1/2022
Last Updated By: (	Chris Gu	ımieny	Last Revision Date: 4/15/2022
Priority	Mediu	m	
Preconditions	The user is on the contact us page.		tact us page.
Postconditions	N/A		
Test Steps	1.	Enter "John Do	oe" into the name field.
	2.	Enter "this is n	not an email" in the email field.
	3. Enter "What are the services that you provide?" in the message		
		field.	
	4.	Press the send	button.
<b>Expected Results</b>	•	There is an erro	or message below that email field telling the user
		to enter a valid	l email address.
	•	The form is no	ot submitted, and the message is not sent.

Test Case ID: TC-42		Test Case Name: Contact Us: Message to Short
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	

Preconditions	The user is on the contact us page.	
Postconditions	The user's message is sent to etimelycsc4996@gmail.com.	
Test Steps	1. Enter "John Doe" into the name field.	
	2. Enter "testing@gmail.com" in the email field.	
	3. Enter "Hello" in the message field.	
	4. Press the send button.	
<b>Expected Results</b>	There is an error message below that message field telling the	
	user to enter a message with 20 or more characters.	
	The form is not submitted, and the message is not sent.	

Test Case ID: TC-43		Test Case Name: Contact Us: Message too Long
Created By: Matt Korte		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	The user is on the contact us page.	
Postconditions	The user's message is sent to etimelycsc4996@gmail.com.	
Test Steps	1. Enter "John Doe" into the name field.	
	2. Enter "testing@gmail.com" in the email field.	
	3. Enter "Hello" in the message field 50 times without spaces.	
	4. Press the send button.	
<b>Expected Results</b>	There is an error message below that message field, telling the	
	user to enter a	message with 250 or less characters
	• The form is not submitted, and the message is not sent.	

# 6.13 Staff Availability Change

Test Case ID: TC-44	Test Case Name: Staff Availability Change: Past
	Date
Created By: Chris Gumieny	Date Created: 4/1/2022

Last Updated By: (	hris Gumieny Last Revision Date: 4/15/2022	
Priority	Low	
Preconditions	• DBS-00, DBS-01 and DBS-02	
	• The user is signed into the staff account created in DBS-02.	
	• Firestore is open in another window.	
Postconditions	The availability is not saved to the "Availability" collection in the	
	database.	
	<ul> <li>The availability is not displayed on the page.</li> </ul>	
Test Steps	1. Navigate to the "Availability" page by clicking the "Availability"	
	tab in the sidebar.	
	2. Click on the timeslot for March 31, 2022, at 5:00am.	
	3. Click the "Confirm" button.	
	4. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that says "Oops Cannot add an availability for a	
	previous time."	
	• The window refreshes the staff availability page.	

Test Case ID: TC-45			Test Case Name: Staff Availability Change:
			Create a Valid Availability
Created By: Chris Gumieny			Date Created: 4/1/2022
Last Updated By: Chris Gumieny		mieny	Last Revision Date: 4/15/2022
Priority	High		
Preconditions	•	DBS-00, DBS-	-01 and DBS-02
	•	The user is sign	ned into the staff account created in DBS-02.
	•	Firestore is ope	en in another window.
Postconditions	The availability is saved to the "Availability" collection in the database.		
Test Steps	1.	Navigate to the	e "Availability" page by clicking the "Availability"
		tab in the sideb	par.
	2.	Click on the tir	meslot for April 20, 2022, at 7:00am.

	3. Change the "End" input to "04/20/2022 12:00 pm."	
	4. Click the "Confirm" button.	
	5. Wait 2 seconds for the "Success" message to disappear.	
<b>Expected Results</b>	An alert that says "Success! Availability has been saved" appears	
	for 2 seconds.	
	The window refreshes the staff availability page.	
	• The entered availability is shown on the calendar on April 22,	
	2022, with the title "07:00 AM – 12:00 PM."	

Test Case ID: TC-46		Test Case Name: Staff Availability Change:	
		Enter a Duplicate Availability	
Created By: Chris Gumieny		Date Created: 4/1/2022	
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022	
Priority	Medium		
Preconditions	• DBS-00, DBS	-01, and DBS-02	
	• User is signed	into account created in DBS-02.	
	• Firestore is op	en in another window.	
	• Follow the step	ps of TC-45.	
Postconditions	The availabilit	y is not saved to the "Availability" collection in the	
	database.	database.	
	• The availabilit	y is not displayed on the page.	
Test Steps	1. Navigate to the "Availability" page by clicking the "Availability"		
	tab in the sidel	tab in the sidebar.	
	2. Click on the ti	2. Click on the timeslot for April 20, 2022, at 7:00am.	
	3. Change the "E	3. Change the "End" input to "04/20/2022 12:00 pm."	
	4. Click the "Cor	nfirm" button.	
	5. Click the "OK	5. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that says "Oops Duplicate availability."		

• The window refreshes the staff availability page.

Test Case ID: TC-47		Test Case Name: Staff Availability Change:	
		Enter an Overlapping Availability	
Created By: Chris Gumieny		Date Created: 4/1/2022	
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022	
Priority	High		
Preconditions	• DBS-00, DBS-01, and DBS-02		
	User is signer	d into account created in DSB-02.	
	• Firestore is o	pen in another window.	
	Perform steps	Perform steps of TC-45.	
Postconditions	The availabil	The availability is not saved to the "Availability" collection in the	
	database.	database.	
	• The availabil	The availability is not displayed on the page.	
Test Steps	1. Navigate to the	1. Navigate to the "Availability" page by clicking the "Availability"	
	tab in the side	tab in the sidebar.	
	2. Click on the	timeslot for April 20, 2022, at 4:00am.	
	3. Change the "	End" input to "04/20/2022 08:00 am."	
	4. Click the "Co	Click the "Confirm" button.	
	5. Click the "Ol	. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that	says "Oops Availabilities cannot overlap."	
	The window refreshes the staff availability page.		

Test Case ID: TC-48		<b>Test Case Name:</b> Staff Availability Change: Edit Existing Availability into a Past Date
Created By: Chris Gumieny		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Low	
Preconditions	• DBS-00, DBS-01, DBS-02 and DBS-04	

	User is signed into account created in DSB-02.	
	Firestore is open in another window.	
Postconditions	The existing availability is not updated in the "Availability"	
	collection of the database.	
	There are no changes to the availability on the schedule.	
Test Steps	1. Navigate to the "Availability" page by clicking the "Availability"	
	tab in the sidebar.	
	2. Click on the existing availability for April 28, 2022, from 8:00am	
	to 4:00pm.	
	3. Click the "Edit" icon in the top right of the pop-up window.	
	4. Change the "Start" input to "03/30/2022 07:00am."	
	5. Change the "End" input to "03/30/2022 12:00pm."	
	6. Click the "Confirm" button.	
	7. Wait 2 seconds for the alert on the center right of the window to	
	disappear.	
	8. Click the "Cancel" button.	
<b>Expected Results</b>	An alert saying "Oops Cannot edit an availability from a previous	
	time."	

Test Case ID: TC-49		Test Case Name: Staff Availability Change:
		Valid Edit on an Existing Availability
Created By: Chris Gumieny		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	• DBS-00, DBS-02, and DBS-04	
	Firestore is open in another window.	
Postconditions	The availability is updated in the "Availability" collection of the	
	database.	

Test Steps	1. Navigate to the "Availability" page by clicking the "Availability"
	tab in the sidebar.
	2. Click on the existing availability for April 28, 2022, from 8:00am
	to 4:00pm.
	3. Click the "Edit" icon in the top right of the pop-up window.
	4. Change the "Start" input to "04/28/2022 08:00 am."
	5. Change the "End" input to "04/28/2022 01:00 pm."
	6. Click the "Confirm" button.
	7. Wait 2 seconds for the "Success" message to disappear.
<b>Expected Results</b>	An alert that says "Success! Availability has been saved" appears
	for 2 seconds.
	• The window refreshes the staff availability page.
	• The updated availability on April 28, 2022, will have the title
	"08:00 AM – 04:00 PM."

Test Case ID: TC-50		Test Case Name: Staff Availability Change:
		Overlapping Edit on an Existing Availability
Created By: Chris Gumieny		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• DBS-00, DBS-01, DBS-02 and DBS-04	
	• The user is sig	ned into account created in DBS-02.
	• Firestore is open in another window.	
Postconditions	The existing availability is not updated in the "Availability"	
	collection of the database.	
	There are no changes to the availability on the schedule.	
Test Steps	1. Navigate to the "Availability" page by clicking the "Availability"	
	tab in the sidebar.	

	2.	Click on the existing availability for April 28, 2022, from 8:00am
		to 4:00pm.
	3.	Click the "Edit" icon in the top right of the pop-up window.
	4.	Change the "End" input to "04/28/2022 06:00 pm."
	5.	Click the "Confirm" button.
	6.	Wait 2 seconds for the alert on the center right of the window to
		disappear.
	7.	Click the "Cancel" button.
<b>Expected Results</b>	An ale	ert saying "Oops Availabilities cannot overlap."

Test Case ID: TC-51			Test Case Name: Staff Availability Change: Edit
			an Existing Availability to a Duplicate
Created By: Chris Gumieny			Date Created: 4/1/2022
Last Updated By: (	Chris Gu	mieny	Last Revision Date: 4/15/2022
Priority	Mediun	n	
Preconditions	•	DBS-00, DBS-	-01, DBS-02 and DBS-04
	•	The user is sign	ned into the account created in DBS-02.
	•	Firestore is ope	en in another window.
Postconditions	•	The existing av	vailability is not updated in the "Availability"
		collection of th	ne database.
	•	There are no cl	hanges to the availability on the schedule.
Test Steps	1.	Navigate to the	e "Availability" page by clicking the "Availability"
		tab in the sideb	par.
	2.	Click on the ex	xisting availability for April 28, 2022, from 8:00am
		to 4:00pm.	
	3.	Click the "Edit	" icon in the top right of the pop-up window.
	4.	Change the "St	tart" input to "04/28/2022 05:00 pm."
	5.	Change the "E	nd" input to "04/28/2022 10:00 pm."
	6.	Click the "Con	firm" button.

	7.	Wait 2 seconds for the alert on the center right of the window to
		disappear.
	8.	Click the "Cancel" button.
<b>Expected Results</b>	An alert saying "Oops Duplicate Availability."	

Test Case ID: TC-52			Test Case Name: Staff Availability Change:
			Delete Availability
Created By: Chris	Gumien	y	Date Created: 4/1/2022
Last Updated By: (	Chris Gu	ımieny	Last Revision Date: 4/15/2022
Priority	High		
Preconditions	•	DBS-01, DBS-	-02 and DBS-04
	•	Firestore is ope	en in another window.
Postconditions	The ex	isting availabili	ty is removed from the "Availability" collection of
	the dat	abase.	
Test Steps	1.	Navigate to the	e "Availability" page by clicking the "Availability"
		tab in the sideb	par.
	2.	Click on the ex	xisting availability for April 28, 2022, from 8:00am
		to 4:00pm.	
	3.	Click on the "I	Delete" icon in the top right of the pop-up window.
	4.	Click on the "I	Delete" button to confirm the deletion.
	5.	5. Wait 2 seconds for the "Success" message to disappear.	
<b>Expected Results</b>	An alert that says "Success! Availability has been deleted"		nys "Success! Availability has been deleted"
		appears for 2 s	econds.
	•	The window re	efreshes the staff availability page.
	•	The existing av	vailability disappears from the schedule.

## 6.14 Team Availability

Test Case ID: TC-53	Test Case Name: Team Availability: Employee
	with 0 Availabilities

Created By: Chris Gumieny		Date Created: 3/31/2022
Last Updated By:	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	,	S-01 and DBS-02 gned into the account created in DBS-01.
Postconditions	N/A	
Test Steps	tab and then sidebar.	he "Team Availability" page by clicking the "Team" clicking the "Team Availability" button on the iew" button to the right of the name "Dave Smith."
<b>Expected Results</b>	A popup window is	shown that includes the text "No availabilities."

Test Case ID: TC-5	54	Test Case Name: Team Availability: Employee
		with 1 Availability
Created By: Chris (	Gumieny	Date Created: 3/31/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• DBS-00, DBS	-01, DBS-02 and DBS-06
	• The user is sig	ned into account created in DBS-01.
Postconditions	N/A	
Test Steps	1. Navigate to the	e "Team Availability" page by clicking the "Team"
	tab and then cl	icking the "Team Availability" button on the
	sidebar.	
	2. Click the "Vie	w" button to the right of the name "Dave Smith."
<b>Expected Results</b>	A popup window is shown that includes the text "April 28: 08:00 AM to	
	4:00 PM."	

Test Case ID: TC-55	<b>Test Case Name:</b> Team Availability: Employee
	with More than 7 Availabilities

Created By: Chris Gumieny		Date Created: 3/31/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	DBS-00, DBS	-01, DBS-02 and DBS-07
	• The user is sig	aned into the account created in DBS-01.
Postconditions	N/A	
Test Steps	1. Navigate to th	e "Team Availability" page by clicking the "Team"
	tab and then c	licking the "Team Availability" button on the
	sidebar.	
	2. Click the "Vie	w" button to the right of the name "Dave Smith."
<b>Expected Results</b>	A popup window with	n the following text is shown:
	• April 20: 07:0	0 AM to 12:00 PM
	• April 21: 10:0	0 AM to 12:00 PM
	• April 22: 01:0	0 PM to 07:00 PM
	• April 23: 02:0	0 PM to 10:00 PM
	• April 24: 10:0	0 AM to 02:00 PM
	• April 25: 06:3	0 AM to 09:00 AM

### 6.15 Schedule Creation

Test Case ID: TC-56		Test Case Name: Schedule Creation: Empty
		Employee Field
Created By: Chris Gumieny		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	DBS-00 and I	DBS-01
	• The user is sig	gned into account created in DBS-01.
Postconditions	The form is not submitted.	
Test Steps	1. Navigate to the "Schedule" page by clicking the "Schedule" tab	
	in the sidebar.	

	2. Click on the timeslot for April 19, 2022, at 7:00am.	
	3. Click the "Confirm" button.	
<b>Expected Results</b>	The employee dropdown is highlighted in red, and the word "Required"	
	is shown under the input.	

Test Case ID: TC-57		Test Case Name: Schedule Creation: Schedule a		
		Shift on a Past Date		
Created By: Chris Gumieny		Date Created: 4/1/2022		
Last Updated By: 0	Chris Gumieny	Last Revision Date: 4/15/2022		
Priority	Medium			
Preconditions	• DBS-00, DBS	S-01, and DBS-02		
	• The user is si	gned into account created in DBS-01.		
	• Firestore is o	pen in another window.		
Postconditions	• The shift is no	ot saved to the "Schedules" collection of the		
	database.			
	• The shift is no	The shift is not shown on the schedule.		
Test Steps	1. Navigate to the "Schedule" page by clicking the "Schedule" tab			
	in the sidebar			
	2. Click on the '	2. Click on the "Cashier" tab on the schedule.		
	3. Click on the t	3. Click on the timeslot for April 19, 2022, at 7:00am.		
	4. Change the "	4. Change the "End" input to "04/19/2022 02:00 pm."		
	5. In the "Emplo	5. In the "Employee" dropdown, select "Dave Smith (Cashier)."		
	6. Click the "Co	6. Click the "Confirm" button.		
	7. Click "OK" b	7. Click "OK" button on the alert.		
<b>Expected Results</b>	An alert that	says "Oops Cannot schedule a shift for a previous		
	time."			
	The window	refreshes the schedule page.		

Test Case ID: TC-58		Test Case Name: Schedule Creation: Schedule		
		an Employee that is Available		
Created By: Chris Gumieny		Date Created: 4/1/2022		
Last Updated By: 0	Chris Gumieny	Last Revision Date: 4/15/2022		
Priority	High			
Preconditions	• DBS-00, DBS	S-01, and DBS-02		
	• The user is sign	gned into account created in DBS-01.		
	Perform steps	of TC-45.		
	Firestore is op-	pen in another window.		
Postconditions	The shift is added to	the "Schedules" collection of the database.		
Test Steps	Navigate to the "Schedule" page by clicking the "Schedule" tab			
	in the sidebar.			
	2. Click on the "	2. Click on the "Tech Support" tab on the schedule.		
	3. Click on the t	Click on the timeslot for April 20, 2022, at 8:00am.		
	4. In the "Emplo	In the "Employee" dropdown, select "Dave Smith (Tech		
	Support)."	Support)."		
	5. Click the "Co	. Click the "Confirm" button.		
	6. Wait 2 second	6. Wait 2 seconds for the "Success" message to disappear.		
<b>Expected Results</b>	An alert that s	• An alert that says "Success! Shift has been saved."		
	The window refreshes the schedule page.			
	• The newly added shift is shown in the "Tech Support" tab on			
	April 20, 2022.			

Test Case ID: TC-59		Test Case Name: Schedule Creation: Schedule a
		Duplicate Shift
Created By: Chris Gumieny		Date Created: 4/1/2022
Last Updated By: Matt Korte		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• DBS-00, DBS-01, and DBS-02	

	The user is signed into account created in DBS-01.
	• Perform steps of TC-45.
	• Firestore is open in another window.
Postconditions	The shift is not saved to the "Schedules" collection of the
	database.
	• The newly added shift does not show up on the schedule page.
Test Steps	1. Navigate to the "Schedule" page by clicking the "Schedule" tab
	in the sidebar.
	2. Click on the "Tech Support" tab on the schedule.
	3. Click on the timeslot for April 19, 2022, at 8:00am.
	4. In the "Employee" dropdown, select "Dave Smith (Tech
	Support)."
	5. Click the "Confirm" button.
	6. Click the "OK" button on the alert.
<b>Expected Results</b>	An alert that says "Oops Duplicate shift."
	• The window refreshes the schedule page.

Test Case ID: TC-60		Test Case Name: Schedule Creation: Schedule
		an Overlapping Shift
Created By: Chris Gumieny		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• DBS-00, DBS-01, and DBS-02	
	• The user is sign	ned into account created in DBS-01.
	• Perform steps of TC-58.	
	Firestore is open in another window.	
Postconditions	The shift is not saved to the "Schedules" collection of the	
	database.	

	The newly added shift does not show up on the schedule page.
Test Steps	1. Navigate to the "Schedule" page by clicking the "Schedule" tab in the sidebar.
	2. Click on the "Tech Support" tab on the schedule.
	3. Click on the timeslot for April 19, 2022, at 6:00am.
	4. Change the "End" input to "04/19/2022 08:30 am."
	5. In the "Employee" dropdown, select "Dave Smith (Tech
	Support)."
	6. Click the "Confirm" button.
	7. Click the "OK" button on the alert.
<b>Expected Results</b>	An alert that says "Oops Overlapping shift."
	• The window refreshes the schedule page.

Test Case ID: TC-61		Test Case Name: Schedule Creation: Schedule	
		an Employee that is Unavailable	
Created By: Chris	Gumieny	Date Created: 4/1/2022	
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022	
Priority	High		
Preconditions	• DBS-00, DBS-	-01, DBS-02	
	• The user is signed into account created in DBS-01.		
	• Perform steps of TC-45.		
	Firestore is open in another window.		
Postconditions	The shift is added to the "Schedules" collection of the database.		
Test Steps	1. Navigate to the "Schedule" page by clicking the "Schedule" tab		
	in the sidebar.		
	2. Click on the "Tech Support" tab on the schedule.		
	3. Click on the timeslot for April 20, 2022, at 2:00pm.		

	4. In the "Employee" dropdown, select "Dave Smith (Tech
	Support)."
	5. Click the "Confirm" button.
	6. Click the "Schedule anyway" button.
	7. Wait 2 seconds for the "Success" message to disappear.
<b>Expected Results</b>	An alert that says "Are you sure? Dave Smith is only available on
	April 20 from 07:00 AM to 12:00 PM."
	<ul> <li>An alert that says "Success! Shift has been saved."</li> </ul>
	The window refreshes the schedule page.
	• The newly added shift is shown in the "Tech Support" tab on
	April 20, 2022.

Test Case ID: TC-62			Test Case Name: Schedule Creation: Cancel the	
			Schedule for an Employee that is Unavailable	
Created By: Chris Gumieny		у	Date Created: 4/1/2022	
Last Updated By: (	Chris G	ımieny	Last Revision Date: 4/15/2022	
Priority	High			
Preconditions	•	DBS-00, DBS	-01, DBS-02	
	•	The user is sign	ned into account created in DBS-01.	
	•	• An employee named "Dave Smith" is in the organization with the		
		role "Tech Support."		
	•	Firestore is open in another window.		
	•	Perform steps of TC-45.		
Postconditions	•	The shift is not added to the "Schedules" collection of the		
		database.		
	•	The shift does not show up on the schedule page.		
Test Steps	1.	. Navigate to the "Schedule" page by clicking the "Schedule" tab		
		in the sidebar.		

	2. Click on the "Tech Support" tab on the schedule.
	3. Click on the timeslot for April 20, 2022, at 4:00am.
	4. In the "Employee" dropdown, select "Dave Smith (Tech
	Support)."
	5. Click the "Confirm" button.
	6. Click the "Cancel" button.
<b>Expected Results</b>	An alert that says "Are you sure? Dave Smith is only available on
	April 20 from 07:00 AM to 12:00 PM."
	The window refreshes the schedule page.

Test Case ID: TC-63		Test Case Name: Schedule Creation: Schedule		
		Two Employees for the Same Time		
Created By: Chris Gumieny		Date Created: 4/1/2022		
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022		
Priority	High			
Preconditions	• DBS-00, DB	S-01, DBS-02		
	• The user is s	igned into account created in DBS-01.		
	Perform step	s of TC-58.		
	An employee	e named "Michael Thomas" is in the organization		
	with the role	with the role "Tech Support."		
	Firestore is or	Firestore is open in another window.		
Postconditions	The shift is added to the "Schedules" collection of the database.			
Test Steps	1. Navigate to the "Schedule" page by clicking the "Schedule" tab			
	in the sidebar.			
	2. Click on the "Tech Support" tab on the schedule.			
	3. Click on the	3. Click on the timeslot for April 20, 2022, at 8:00am.		
	4. In the "Empl	oyee" dropdown, select "Michael Thomas (Tech		
	Support)."			

	5. Click the "Schedule anyway" button.
	6. Wait 2 seconds for the "Success" message to disappear.
<b>Expected Results</b>	An alert that says "Are you sure? Michael Thomas does not have
	any availabilities set for this date."
	<ul> <li>An alert that says "Success! Shift has been saved."</li> </ul>
	<ul> <li>The window refreshes the schedule page.</li> </ul>
	<ul> <li>The newly added shift is shown in the "Tech Support" tab on</li> </ul>
	April 20, 2022.

Test Case ID: TC-64			Test Case Name: Schedule Creation: Edit Shift	
			to a Past Date	
Created By: Chris Gumieny			Date Created: 4/1/2022	
Last Updated By: 0	Chris Gumier	ıy	Last Revision Date: 4/15/2022	
Priority	Medium			
Preconditions	• DBS	S-00, DBS-0	01 and DBS-02	
	• The	user is sign	ed into account created in DBS-01.	
	• Perf	orm steps o	f TC-58.	
	• Fire	store is oper	n in another window.	
Postconditions	• The	The shift is not updated in the "Schedules" collection of the		
	data	database.		
	• The	There are no changes to the existing shift on the schedule.		
Test Steps	1. Nav	Navigate to the "Schedule" page by clicking the "Schedule" tab		
	in th	in the sidebar.		
	2. Clic	Click on the existing shift for April 20, 2022, from 8:00am to		
	9:00	9:00am.		
	3. Clic	k the "Edit"	'icon in the top right of the pop-up window.	
	4. Cha	nge the "Sta	art" input to "03/31/2022 08:00 am."	
	5. Cha	Change the "End" input to "03/31/2022 09:00 am."		

	6. Click the "Confirm" button.	
	7. Wait 2 seconds for the alert on the center right of the window to	
	disappear.	
	8. Click the "Cancel" button.	
<b>Expected Results</b>	An alert that says, "Cannot edit a shift that has already happened."	

Test Case ID: TC-65		Test Case Name: Schedule Creation:	
		Overlapping Edit to an Existing Shift	
Created By: Chris Gumieny		Date Created: 4/1/2022	
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022	
Priority	Medium		
Preconditions	• DBS-00, DBS-01 and DBS-02		
	• The user is sig	ned into account created in DBS-01.	
	• There is a shift	t scheduled for Dave Smith with the role "Cashier"	
	on April 19, 20	on April 19, 2022, from 7:00am to 8:00am.	
	• There is another	er shift scheduled for Dave Smith with the role	
	"Cashier" on A	"Cashier" on April 19, 2022, from 2:00pm to 3:00pm.	
Postconditions	The shift is not updated in the "Schedules" collection of the		
	database.		
	• There are no cl	There are no changes to the existing shift on the schedule.	
Test Steps	1. Navigate to the	1. Navigate to the "Schedule" page by clicking the "Schedule" tab	
	in the sidebar.		
	2. Click on the ex	kisting shift for April 19, 2022, from 7:00am to	
	8:00am.		
	3. Click the "Edi	t" icon in the top right of the pop-up window.	
	4. Change the "E	nd" input to "04/19/2022 02:30 pm."	
	5. Click the "Con	nfirm" button.	

	6. Wait 2 seconds for the alert on the center right of the window to	
	disappear.	
	7. Click the "Cancel" button.	
<b>Expected Results</b>	An alert that says "Oops Overlapping Shift."	

Test Case ID: TC-66		Test Case Name: Schedule Creation: Valid Edit
		to an Existing Shift
Created By: Chris Gumieny		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	• DBS-00, DBS	-01 and DBS-02
	Perform steps	of TC-58.
	• The user is sig	ned into account created into account created in
	DBS-01.	
Postconditions	The shift is updated in the "Schedules" collection of the database.	
Test Steps	1. Navigate to the	e "Schedule" page by clicking the "Schedule" tab
	in the sidebar.	
	2. Click on the ex	xisting shift for April 20, 2022, from 8:00am to
	9:00am.	
	3. Click the "Edit" icon in the top right of the pop-up window.	
	4. Change the "Start" input to "04/22/2022 11:00 am."	
	5. Change the "End" input to "04/22/2022 06:30 pm."	
	6. Click the "Confirm" button.	
	7. Wait 2 seconds	s for the "Success" message to disappear.
<b>Expected Results</b>	An alert that sa	ays "Success! Shift has been saved."
	• The window re	efreshes the schedule page.
	The updated sl	nift is now shown for the new time and date on the
	schedule.	

Test Case ID: TC-67		Test Case Name: Schedule Creation: Delete	
		Shift	
Created By: Chris Gumieny		Date Created: 4/1/2022	
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022	
Priority	High		
Preconditions	• DBS-00, DBS	S-01 and DBS-02	
	• The user is sign	gned into account created in DBS-01.	
	Perform steps	of TC-58.	
Postconditions	The shift is removed from the "Schedules" collection of the database.		
Test Steps	1. Navigate to the "Schedule" page by clicking the "Schedule" tab		
	in the sidebar		
	2. Click on the existing shift for April 20, 2022, from 8:00am to		
	9:00am.	9:00am.	
	3. Click on the "	3. Click on the "Delete" icon in the top right of the pop-up window.	
	4. Click on the "	4. Click on the "Delete" button to confirm the deletion.	
	5. Wait 2 second	ls for the "Success" message to disappear.	
<b>Expected Results</b>	An alert that s	says "Success! Shift has been deleted."	
	The window is	refreshes the schedule page.	
	• The existing s	shift disappears from the schedule.	

## 6.16 Staff Schedule Page

Test Case ID: TC-6	58	Test Case Name: Staff Schedule Page: Display
		Employee Schedule
Created By: Chris Gumieny		Date Created: 3/31/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Low	
Preconditions	• DBS-00, DSB-01 and DBS-02	

	Perform steps of TC-58.		
	• The user is signed in account created in DBS-02.		
Postconditions	N/A		
Test Steps	Navigate to the "Staff Schedule Page" by clicking the "Schedule" tab in		
	the sidebar.		
<b>Expected Results</b>	A schedule is shown, and on that schedule is a shift with the title "Tech		
	Support" and a subtitle "08:00 AM – 09:00 AM" on April 20, 2022.		

### 7. Non-functional Test Cases

#### 7.1 Performance

Test Case ID: T	C-60	Test Case Name: Staff API Request Performan	CO	
Test Case ID. 1C-09		-	.ce –	
		Restful Server Application		
Created By: Caleb Obi		Date Created: 4/1/2022		
Last Updated B	<b>y:</b> N/A	<b>Last Revision Date:</b> N/A		
Priority	Medium			
Preconditions	The backend server	is started, and the Postman testing tool is opened		
Postconditions	N/A			
Test Steps	Select all staff REST API endpoint used in the application.			
	2. Go to POSTMAN and type the staff API endpoint below:			
	GET http://localhost:5001/eTimely/staff/getAllStaffs.		<u>.</u>	
	POST http://localhost:5001/eTimely/login.			
	POST http://localhost:5001/eTimely/staff/register.			
	GET	GET http://localhost:5001/eTimely/staff/verify/:token.		
	PUT			
	http://localhost:5001/eTimely/staff/updateStaffUser/staffId.		taffId.	
	GET			
	http://localhost:5001/eTimely/staff/getStaffUserById/:staffId.		:staffId.	
	-			
	3. Change the request type to GET, POST, PUT, DELETE based on		d on	
		request type.		
	• •	t scripts in Tests body.		
	4. Illelude l'est	t scripts in Tests body.		
	L			
	pm.test("Staff A	API Response time", function() {		

	5. Click on "Send" button on postman to send request.
Expected Results	The time it takes for each API call will be shown.  Clicking the "Test Posulte" will allow the user to view possed test.
	<ul> <li>Clicking the "Test Results" will allow the user to view passed test case showing API executes below 3 seconds.</li> </ul>

Test Case ID: TC-70		Test Case Name: Business API Request Performance	
		Restful Sever Application	
Created By: Caleb Obi		Date Created: 4/1/2022	
Last Updated By	v: N/A	Last Revision Date: N/A	
Priority	Medium		
Preconditions	The backend server	is started, and the Postman testing tool is opened.	
Postconditions	N/A		
Test Steps	1. Select all busines	s user REST API endpoint used in the application.	
	2. Go to POSTMAN	N and type each business API endpoint below:	
	POST <a href="http://localhost:5001/eTimely/business/register.">http://localhost:5001/eTimely/business/register.</a>		
	POST http://localhost:5001/eTimely/login.		
	POST <a href="http://localhost:5001/eTimely/business/filterStaff/:companyId.">http://localhost:5001/eTimely/business/filterStaff/:companyId.</a>		
	POST <a href="http://localhost:5001/eTimely/business/generateInviteLink.">http://localhost:5001/eTimely/business/generateInviteLink.</a>		
	POST <a href="http://localhost:5001/eTimely/business/verifyInviteLink/:token.">http://localhost:5001/eTimely/business/verifyInviteLink/:token.</a>		
	GET <a href="http://localhost:5001/eTimely/business/verify/:token.">http://localhost:5001/eTimely/business/verify/:token.</a>		
	GET <a href="http://localhost:5001/eTimely/business/staff/:companyName.">http://localhost:5001/eTimely/business/staff/:companyName.</a>		
	GET		
	http://localhost:5002	1/eTimely/business/getstaffByCompanyId/:companyId.	
	GET		
	http://localhost:5001/eTimely/business/getBusinessUserById/:businessId.		
	PUT http://localhost:5001/eTimely/updatePasswordPost/:token.		
	PUT http://localhost:5001/eTimely/resetPasswordPost.		
	PUT <a href="http://localhost&lt;/a&gt;&lt;/th&gt;&lt;th&gt;t:5001/eTimely/business/updateStaff/:staffId.&lt;/th&gt;&lt;/tr&gt;&lt;tr&gt;&lt;th&gt;&lt;/th&gt;&lt;th&gt;PUT&lt;/th&gt;&lt;th&gt;&lt;/th&gt;&lt;/tr&gt;&lt;tr&gt;&lt;th&gt;&lt;/th&gt;&lt;th&gt;-&lt;/th&gt;&lt;th&gt;1/eTimely/business/updateBusinessUser/:businessId.&lt;/th&gt;&lt;/tr&gt;&lt;tr&gt;&lt;th&gt;&lt;/th&gt;&lt;th&gt;DELETE &lt;a href=" http:="" loc<="" localete.com="" th=""><th>alhost:5001/eTimely/business/terminate/:staffId.</th></a>	alhost:5001/eTimely/business/terminate/:staffId.	

	<ul><li>3. Change the request type to GET, POST, PUT, DELETE based on type of API request type.</li><li>4. Include Test scripts in Tests body.</li></ul>
	<pre>pm.test("Business API Response time", function() {</pre>
	<pre>pm.expect(pm.response.responseTime).to.be.below(3000); })</pre>
	5. Click on "Send" button on postman to send request.
Expected	<ul> <li>The time it takes for each API call will be shown.</li> </ul>
Results	<ul> <li>Clicking the "Test Results" will allow the user to view passed test case showing API executes below 3 seconds.</li> </ul>

Test Case ID: TC-71			Test Case Name: Concurrent API Performance
			Test- Restful Server Application
Created By: Caleb	Obi		Date Created: 4/4/2022
Last Updated By: 1	N/A		Last Revision Date: N/A
Priority	Low		
Preconditions	N/A		
Postconditions	N/A		
Test Steps	1.	Visit <a href="https://portal.azure.com/">https://portal.azure.com/</a>	
	2.	2. Enter "etimelyTest@gmail.com" in the email field.	
	3.	Enter "Pass1234" into the password field.	
	4.	Click on "Log In" to sign into Azure Load Testing.	
	5.	Click on "Create a resource".	
	6.	Enter "eTimelyLoadTest" into the name field.	
	7.	Enter "100" into the user load amount field.	
	8.	Enter "5" into duration field.	

	9. Click "Review + Create" button.	
	10. Wait 5 minutes for the test to complete.	
<b>Expected Results</b>	The test result will display "Test was successful".	

## 7.2 Reliability

Test Case ID: TC-72		Test Case Name: Database Server Error
		Handling
Created By: Caleb	Obi	Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/5/2022
Priority	High	
Preconditions	The backend se	erver is started.
	<ul> <li>API request ca</li> </ul>	lled.
Postconditions	An error message is shown to the user.	
Test Steps	When an API request fails, send a valid message back to the user	
	describing what the error is.	
<b>Expected Results</b>	Database returns all failed error messages back to the user.	

# 7.3 Security

Test Case ID: TC-7	73	Test Case Name: Business Account Password
		Encryption
Created By: Caleb	Obi	Date Created: 4/1/2022
Last Updated By:	Chris Gumieny	Last Revision Date: 4/5/2022
Priority	High	
Preconditions	N/A	
Postconditions	The hashed password will be shown in the firebase console.	
Test Steps	1. Enter "eTimelyTest" in the "Company Name" field.	
	2. Enter <a href="mailto:etimelyTest@gmail.com">etimelyTest@gmail.com</a> into the "Email" field.	
	3. Enter "Pass1234" into the "Password" and "Confirm Password"	
	fields.	
<b>Expected Results</b>	The hashed password	will be shown in the firebase console.

Test Case ID: TC-74	Test Case Name: Staff Account Password
	Encryption
Created By: Caleb Obi	Date Created: 4/1/2022
Last Updated By: Chris Gumieny	Last Revision Date: 4/5/2022

Priority	High
Preconditions	N/A
Postconditions	The hashed password will be shown in the firebase console.
Test Steps	1. Load the "Staff account creation" page.
	2. Enter "Test1234" into the "Password" and "Confirm Password"
	fields.
<b>Expected Results</b>	The hashed password will be shown in the firebase console.

## 7.4 Portability

Test Case ID: TC-75		Test Case Name: Website Responsiveness
Created By: Caleb Obi		Date Created: 4/1/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/3/2022
Priority	High	
Preconditions	The website is loaded.	
Postconditions	Website renders according to screen resolution.	
Test Steps	1. View the website on a desktop.	
	2. View the website on a smartphone.	
	3. View the website on a tablet.	
<b>Expected Results</b>	The website will be able to be viewed from any device with proper	
	styling.	

# **8. Integration Test Cases**

### 8.1 Nodemailer Email Service

Test Case ID: TC-76		Test Case Name: Nodemailer – Sending Email
Created By: Caleb Obi		Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/5/2022
Priority	High	
Preconditions	The backend server is	started.
Postconditions	No data should be affected by this test.	
Test Steps	1. Create a mock nodemailer transporter information where emails will	
	be sent to.	
	2. Use the "etimelyTest@gmail.com" for the transporter email user.	
	3. Use the "Pass1234" for the transporter password.	
	4. Create Test scripts to check if email is sent successfully using	
	nodemailer.	

```
describe("Test nodemailer", () => {
                          it("should send an email successfully", async () => {
                              const transporter = nodeMailer.createTransport({
                              service: "gmail",
                              auth: {
                                  user: "etimelyTest@gmail.com",
                                  pass: "Pass1234",
                                  },
                              });
                              const mailOptions = {
                              from: "etimelyTest@gmail.com",
                              to: "etimelymail@gmail.com",
                              subject: "Email test",
                              html: `<h1>Testing Nodemailer integration</h1>`,};
                              transporter.sendMail(mailOptions, function (error,
                     info) {
                                  if (error) {
                                  console.log(error);
                                  } else {
                                  // send success message to the client
                                  console.log("Email sent: " + info.response);
                                  } } );
Expected Results
                   1. Test case passing.
                   2. An email will be received at the etimelymail@gmail.com email
                   address to confirm the email has been sent successfully.
```

#### 8.2 JSON Web Token

Test Case ID: TC-77		Test Case Name: Generating JWT Access Token
		for Authentication - Successful
Created By: Caleb	Obi	Date Created: 4/1/2022
Last Updated By:	Chris Gumieny	Last Revision Date: 4/5/2022
Priority	Low	
Preconditions	The website is loaded.	
Postconditions	Generated web tokens can be seen in local storage.	
Test Steps	Select all staff REST API endpoint used in the application	
	2. Navigate to the	e home page.
	3. Click on "Sign In" on the home page.	
	4. Enter "etimely	Test@gmail.com" in the email address field.
	5. Enter "Pass123	34" in the password field.

	6. Check local storage for generated access.
<b>Expected Results</b>	• Json web tokens (JWT) will generate a one-time access token.
	• The access token will be stored in the user's local storage.
	<ul> <li>The access token will be checked for permissions to access pages in the application.</li> </ul>

Test Case ID: TC-7	78	Test Case Name: Reset Password Expired
		Access Link - Successful
Created By: Caleb	Obi	Date Created: 4/1/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Low	
Preconditions	The website is loaded	
Postconditions	An error message is s	hown that says the reset link has expired.
Test Steps	1. Open the "Sig	n In" page in the eTimely application.
	2. Click on the "reset password" link in sign in page.	
	3. Load the "reset password" page.	
	4. Enter "etimelyTest@gmail.com" in the email address field.	
	5. Click "Send Reset Link".	
	6. Check the email address for the reset password link.	
	7. Invite links expire in 1 hour.	
	8. Attempt to reset password after 1 hour.	
<b>Expected Results</b>	An error message when they click on a reset link that has expired.	
	There is not an ability to reset a password with an expired link.	

# 9. System Test Cases

### 9.1 Default User

Test Case ID: TC-79	Test Case Name: Default User: About Us
Created By: Chris Gumieny	Date Created: 4/4/2022

Last Updated By: 1	N/A	Last Revision Date: N/A
Priority	Medium	
Preconditions	The user is not signed	into an account and is on the home page.
Postconditions	N/A	
Parameters	N/A	
Test Steps	Click on the "About U	s" link in the navigation bar.
<b>Expected Results</b>	The "About Us" page	is opened.

Test Case ID: TC-8	80	Test Case Name: Default User: Terms and
		Conditions
Created By: Chris	Gumieny	Date Created: 4/4/2022
Last Updated By:	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	The user is not signed into an account and is on the home page.	
Postconditions	N/A	
Parameters	N/A	
Test Steps	Scroll down to the bottom of the page and click the "Terms and	
	Conditions" link in the footer.	
<b>Expected Results</b>	The "Terms and Conditions" page is opened.	

Test Case ID: TC-8	31	Test Case Name: Default User: Contact Us
Created By: Chris	Gumieny	Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	The user is not signed in.	
	• Follow the steps in TC-80.	
	Firestore is open	en in another window.
Postconditions	• The user's me	ssage is sent to etimelycsc4996@gmail.com.

	The message is saved in the "ContactUs" collection of the	
	database.	
Parameters	Name: John Doe	
	Email: etimelyTest@gmail.com	
	• Message: Can I access this website on my phone?	
Test Steps	1. Click on the "Contact Us" link in the navigation bar.	
	2. Enter [Name] in the name field.	
	3. Enter [Email] in the email address field.	
	4. Enter [Message] into the message field.	
	5. Click the "Send" button.	
	6. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that says, "Your message has been sent."	

# 9.2 Business User First Login

Test Case ID: TC-8	32	Test Case Name: Business User: Registration
Created By: Chris	Gumieny	Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	The user is not	t signed in and is on the home page.
	• Firestore is op	en in another window.
Postconditions	A new accoun	t is created with the new information. This new
	information is	added to the "BusinessUser" collection of the
	database.	
	Five default re	oles are added and linked to the business account in
	the "Roles" co	llection of the database.
	A verification	email is sent to the designated email.
Parameters	Company Na	me: Target
	• Email: etimel	yTest@gmail.com
	• Password: Te	sting1234

Test Steps	1. Click the "Sign Up" button on the home page.
	2. Enter [Company Name] in the "Company Name" field.
	3. Enter [Email] in the "Email" field.
	4. Enter [Password] in the "Password" and "Confirm Password"
	fields.
	5. Check the "I agree to the terms and conditions" box.
	6. Click the "Create Account" button.
	7. Click the "OK" button on the alert.
<b>Expected Results</b>	An alert that says "Activation link has been sent to your email.
	Please check your email to activate your account."
	• The user is then sent to the login page.

Test Case ID: TC-8	33	Test Case Name: Business User: Verification	
Created By: Chris	Gumieny	Date Created: 4/4/2022	
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022	
Priority	High		
Preconditions	Follow ti	the steps in TC-82.	
	• Firestore	e is open in another window.	
Postconditions	• The isVe	erified field in the designated document for the business	
	user acco	ount is updated to true in the "BusinessUser" collection	
	of the da	of the database.	
	• The acco	ount can now be logged into.	
Parameters	N/A		
Test Steps	1. Open the	e email that was sent after completing TC-82.	
	2. Click the	e "Verify your account" button.	
<b>Expected Results</b>	A page is open v	with a message saying that the account is now verified.	

Test Case ID: TC-84	<b>Test Case Name:</b> Business User: Reset Password
Created By: Chris Gumieny	Date Created: 4/4/2022

Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022	
Priority	Medium		
Preconditions	The user is or	the login page.	
Postconditions	The account's passw	ord is updated and hashed in the "BusinessUser"	
	collection of the data	base.	
Parameters	• Email: etime	lyTest@gmail.com	
	• New Password: Testing12345		
Test Steps	1. Click the "Fo	1. Click the "Forgot Password? Reset" button.	
	2. Enter [ <b>Email</b> ]	Enter [Email] into the email field.	
	3. Click the "Se	Click the "Send Reset Link" button.	
	4. Navigate to the	Navigate to the "Reset password" email that was sent to [Email].	
	5. Click the "Re	Click the "Reset Password" button in the email.	
	6. Enter [Passw	. Enter [Password] in the "Password" and "Confirm Password"	
	fields.	fields.	
	7. Click the "Ch	Click the "Change Password" button.	
	8. Click the "OF	8. Click the "OK" button on the alert.	
<b>Expected Results</b>	An email sen	t with a "Reset Password" button.	
	An alert that s	• An alert that says, "Password changed successfully, please login	
	with new pass	sword."	
	• The user is re	directed to the login page.	

Test Case ID: TC-8	35	Test Case Name: Business User: Login
Created By: Chris	Gumieny	Date Created: 4/4/2022
Last Updated By: 1	N/A	Last Revision Date: N/A
Priority	High	
Preconditions	• Follow the steps in TC-82 and TC-84.	
	• The user is on	the login page.
Postconditions	N/A	
Parameters	• Email: etimely	yTest@gmail.com

	• Password: Testing12345	
Test Steps	1. Enter [Email] into the "Email" field.	
	2. Enter [Password] into the "Password" field.	
	3. Click the "Login" button.	
<b>Expected Results</b>	The user is signed into a business account and is redirected to the	
	business dashboard.	

Test Case ID: TC-8	36	Test Case Name: Business User: Dashboard
		Announcement
Created By: Chris	Gumieny	Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the step	ps in TC-85.
	Firestore is open	en in another window.
	• The user is on	the business dashboard.
Postconditions	The new announcement is saved to the "Announcement" collection of	
	the database.	
Parameters	• Title: News fo	or Friday
	• <b>Details:</b> We w	ill have a day off on Friday.
Test Steps	1. Enter [Title] in	the title field.
	2. Enter [ <b>Details</b> ]	in the details field.
	3. Click the "Sen	d" button.
	4. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that sa	ays "Success, Announcement created successfully."
	• The page is rel	oaded, and the announcement form is made empty.

Test Case ID: TC-87	Test Case Name: Business User: Create Role
Created By: Chris Gumieny	Date Created: 4/4/2022

Last Updated By: (	Chris Gumieny Last Revision Date: 4/15/2022	
Priority	Medium	
Preconditions	• Follow the steps in TC-85.	
	<ul> <li>Firestore is open in another window.</li> </ul>	
Postconditions	The role is saved to the "Roles" collection of the database.	
Parameters	Name: Waiter	
Test Steps	1. Navigate to the "Team Roles" page by clicking the "Team" tab	
	and then the "Team Roles" button in the sidebar.	
	2. In the "Create Role" field, enter [Name].	
	3. Click the "Create" button.	
	4. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that says "Success, added successfully."	
	The page is reloaded, the role is added to the page, and the role	
	input is made empty.	

Test Case ID: TC-88		Test Case Name: Business User: Edit Role
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the st	eps in TC-85.
	• Firestore is o	pen in another window.
	• The user is or	n the "Team Roles" page.
Postconditions	The edited role is updated in the "Roles" collection of the database.	
Parameters	Name: Engineer	
Test Steps	1. Next to the ro	ole name "Tech Support", click the "Edit" button.
	2. In the "Role"	field, change the input to [Name].
	3. Click the "Sa	ve" button.
<b>Expected Results</b>	An alert that	says "Success, Role updated successfully."
	• The page is r	eloaded, and the role is updated in the table.

Test Case ID: TC-89		Test Case Name: Business User: Delete Role
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	Follow the ste	ps in TC-85 and TC-87.
	• Firestore is op	en in another window.
	• The user is on	the "Team Roles" page.
Postconditions	The deleted role is removed from the "Roles" collection of the database.	
Parameters	N/A	
Test Steps	1. Next to the ro	le name "Cashier", click the "Delete" button.
	2. Click the "Yes	s, delete role!" button.
<b>Expected Results</b>	An alert that s	ays "Are you sure? You won't be able to revert
	this."	
	• The page is re	loaded, and the deleted role is removed from the
	table.	

Test Case ID: TC-9	90		Test Case Name: Business User: Invite Staff
			Member
Created By: Chris	Gumieny		Date Created: 4/4/2022
Last Updated By:	Chris Gun	nieny	Last Revision Date: 4/15/2022
Priority	High		
Preconditions	• F	Follow the step	os in TC-85.
	• F	Firestore is ope	en in another window.
Postconditions	• 7	The entered inf	formation is added to the "StaffUser" collection of
	t]	he database w	ith the "accountStatus" field set to "Inactive".
	• A	An invitation e	email is sent to the submitted email.
Parameters	• H	First Name: D	Dave

	Last Name: Smith
	• Email: etimelyStaff@gmail.com
	• Role: Manager
Test Steps	1. Navigate to the "Team Management" page by clicking the
	"Team" tab and then clicking the "Team Management" button in
	the sidebar.
	2. Click the "Invite Staff Member" button.
	3. Enter [First Name] in the "First Name" field.
	4. Enter [Last Name] in the "Last Name" field.
	5. Enter [Email] in the "Email" field.
	6. Select [Role] in the "Role" dropdown.
	7. Click the "Invite" button.
	8. Click the "OK" button on the alert.
<b>Expected Results</b>	An alert that says, "Success, Invitation was sent successfully."
	• The invited user appears on the team table.

Test Case ID: TC-91		Test Case Name: Business User: Assign Role
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• Follow the steps in TC-85 and TC-90.	
	• Firestore is o	pen in another window.
	• The user is or	n the "Team Management" page.
Postconditions	The new role	is assigned to the selected employee in the
	"StaffUser" o	collection of the database.
	• This change	is displayed on the team management page.
Parameters	N/A	
Test Steps	1. On the team	management page, next to "Dave Smith", click the
	"Edit" button	ı.

	2. In the "Role" dropdown, select "Cashier."	
	3. Click the "Save" button.	
	4. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that says, "Success, Staff updated successfully."	
	• The page reloads, and the newly assigned role shows up on the	
	page.	

Test Case ID: TC-92		Test Case Name: Business User: Team Search
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• Follow the s	teps in TC-85 and TC-90.
	• The user is o	on the "Team Management" page.
Postconditions	N/A	
Parameters	Search One:	Smith
	Search Two	: xyz
Test Steps	1. In the "Sear	ch" bar, enter [Search One].
	2. Then, delete	the input and enter [Search Two].
<b>Expected Results</b>	After Search	One, the employee that matches the search will
	show up on	the table.
	After Search	Two, no employees will be shown on the table.

Test Case ID: TC-93		<b>Test Case Name:</b> Business User: Filter By Role
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• Follow the steps in TC-85 and TC-90.	
	• The user is on the "Team Management" page.	

Postconditions	N/A
Parameters	N/A
Test Steps	1. On the top of the page, click the "Filter by Role" dropdown.
	2. In the dropdown, select "Cashier."
<b>Expected Results</b>	The team management table will show the employees in the organization
	that match the role "Cashier."

Test Case ID: TC-94		Test Case Name: Business User: Schedule
		Unavailable Employee
Created By: Chris G	dumieny	Date Created: 4/4/2022
<b>Last Updated By:</b> C	Thris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the step	ps in TC-85 and TC-90.
	Firestore is op	en in another window.
Postconditions	The shift is added to t	he "Schedules" collection of the database.
Parameters	N/A	
Test Steps	1. On the sidebar	c, click the "Schedule" tab.
	2. Click the "Sch	edule" tab in the sidebar.
	3. Click on the "Cashier" tab in the schedule page.	
	4. Click on the timeslot for April 20, 2022, at 2:00pm.	
	5. In the "Employ	yee" dropdown, select "Dave Smith (Tech
	Support)."	
	6. Click the "Cor	nfirm" button.
	7. Click the "Sch	edule anyway" button.
	8. Wait 2 second	s for the "Success" message to disappear.
<b>Expected Results</b>	An alert that sa	ays "Are you sure? Dave Smith is only available
	on April 20 fro	om 07:00 AM to 12:00 PM."
	An alert that sa	ays "Success! Shift has been saved."
	The window re	efreshes the schedule page.

•	The newly added shift is shown in the "Tech Support" tab on
	April 20, 2022.

Test Case ID: TC-95		Test Case Name: Business User: Edit Shift
Created By: Chris Gumieny		Date Created: 4/5/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	Follow the step	ps in TC-85 and TC-94.
	Firestore is op	en in another window.
	• The user is on	the "Schedule" page.
Postconditions	The edited shift is updated in the "Schedules" collection of the database.	
Parameters	N/A	
Test Steps	1. Click on the ex	xisting shift for April 20, from 2:00pm to 3:00pm.
	2. Click the "Edi	t" icon in the top right of the pop-up window.
	3. Change the "Start" input to "04/22/2022 2:00pm."	
	4. Change the "E	and" input to "04/22/2022 4:00pm."
	5. Click the "Cor	nfirm" button.
	6. Wait 2 second	s for the "Success" message to disappear.
<b>Expected Results</b>	An alert that sa	ays "Success, Shift has been saved."
	The window re	efreshes the schedule page.
	The updated sl	hift is now shown for the new time and date on the
	schedule.	

Test Case ID: TC-96	5	Test Case Name: Business User: Create an Announcement
Created By: Chris Gumieny		Date Created: 4/5/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	• Follow the steps in TC-85.	

	Firestore is open in another window.	
Postconditions	The created announcement is saved to the "Announcement" collection	
	of the database.	
Parameters	Title: Tomorrow	
	• <b>Details:</b> We start at 10:00am tomorrow.	
Test Steps	1. Navigate to the "Create Announcements" page by clicking the	
	"Announcements" tab and then clicking the "Create	
	Announcements" button in the sidebar.	
	2. Enter [Title] in the "Title" field.	
	3. Enter [Details] in the "Details" field.	
	4. Click the "Send" button.	
<b>Expected Results</b>	An alert that says "Success, Announcement created	
	successfully."	
	The window refreshes the page, and the fields are made empty.	

Test Case ID: TC-97		Test Case Name: Business User: View
		Announcements
Created By: Chris C	dumieny	Date Created: 4/5/2022
<b>Last Updated By: </b> C	Chris Gumieny	<b>Last Revision Date:</b> 4/15/2022
Priority	High	
Preconditions	Follow the steps in TO	C-85 and TC-96.
Postconditions	N/A	
Parameters	N/A	
Test Steps	Navigate to the "View Announcements" page by clicking the	
	"Announcements" tab and then clicking the "View Announcements"	
	button in the sidebar.	
<b>Expected Results</b>	A page that shows all created announcements in the organization with a	
	"Delete" button for each announcement.	

Test Case ID: TC-98		<b>Test Case Name:</b> Business User: Update Profile
Created By: Chris Gumieny		Date Created: 4/5/2022
Last Updated By: C	hris Gumieny	<b>Last Revision Date:</b> 4/15/2022
Priority	High	
Preconditions	Follow the step	ps in TC-85.
	• Firestore is op	en in another window.
Postconditions	The business account	is updated in the "BusinessUser" collection of the
	database with the new	information.
Parameters	Company Nar	me: Walmart
	• Password: Te	sting123
Test Steps	1. Navigate to the	e "Business Profile" page by clicking on the user
	image icon in	the top right of the window and then clicking
	"Profile" in the dropdown.	
	2. Change the "C	company Name' field to [Company Name].
	3. Enter [Passwo	rd] in the "Password" and "Confirm Password"
	fields.	
	4. Click the "Sav	e" button.
	5. Click "OK" or	n the alert.
<b>Expected Results</b>	An alert that sa	ays "Success, Profile updated successfully."
	• The profile inf	formation is updated on the screen.

Test Case ID: TC-99		Test Case Name: Business User: Logout
Created By: Chris Gumieny		Date Created: 4/5/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the steps in TC-85.	
Postconditions	The user is logged out of the account and will not be able to access any	
	pages that require the user to be logged in.	
Parameters	N/A	

Test Steps	1. Click on the user image icon in the top right of the window and
	then click "Logout"
	2. Click the "Yes, logout!" button.
<b>Expected Results</b>	The user is signed out and is taken to the home page.

### 9.3 Staff User

Test Case ID: TC-100		Test Case Name: Staff User: Sign Up
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the step	os in TC-90.
	Firestore is open	en in another window.
Postconditions	The staff account is no	ow identified as "Active" in the "StaffUser"
	collection of the datab	ase, and the user will now be able to log in
	normally.	
Parameters	Password: Test1234	
Test Steps	1. In the invitation	n email sent to etimelyStaff@gmail.com, click the
	"Set your pass	word" button.
	2. Enter [Passwo	rd] into the "Password" and "Confirm Password"
	fields.	
	3. Click the "I ag	ree to the Terms and Conditions" check box.
	4. Click the "Set	my password" button.
<b>Expected Results</b>	The user is taken to th	e login page.

Test Case ID: TC-101		Test Case Name: Staff User: Login
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	• Follow the steps in TC-100.	

	The user is on the login page.	
Postconditions	The user is signed in.	
Parameters	Email: etimelyStaff@gmail.com	
	• Password: Test1234.	
Test Steps	1. Enter [Email] into the "Email" field.	
	2. Enter [Password] into the "Password" field.	
	3. Click the "Login" button.	
<b>Expected Results</b>	The user is signed in and taken to the staff dashboard.	

Test Case ID: TC-102		Test Case Name: Staff User: Dashboard
		Information
Created By: Chris	Gumieny	Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the steps in TC	C-94, TC-95, TC-96 and TC-101.
Postconditions	N/A	
Parameters	N/A	
Test Steps	Navigate to the staff dashboard page by clicking the "Dashboard" tab in	
	the sidebar.	
<b>Expected Results</b>	• In the "Next Shift" box, text that says, "Your next shift is at Apr	
	20 <sup>th</sup> 8:00 AM to 9:00 AM."	
	• In the "Upcoming Workdays" box, text that says, "Apr 22 <sup>nd</sup> ."	
	• In the "Latest A	Announcement" box, text that shows the time, date
	and details of the latest announcement.	

Test Case ID: TC-103		Test Case Name: Staff User: View Schedule
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	

Preconditions	Follow the steps to TC-94, TC-95 and TC-101.
Postconditions	N/A
Parameters	N/A
Test Steps	Navigate to the "Staff Schedule" page by clicking on the "Schedule" tab
	in the sidebar.
<b>Expected Results</b>	A schedule is shown, and on that schedule is a shift with the title "Tech
	Support" and a subtitle "02:00 PM – 04:00PM" on April 22, 2022.

Test Case ID: TC-104			Test Case Name: Staff User: Add Availability
Created By: Chris Gumieny		у	Date Created: 4/4/2022
Last Updated By: 0	Chris G	umieny	Last Revision Date: 4/15/2022
Priority	High		
Preconditions	•	Follow the step	os in TC-101.
	•	Firestore is ope	en in another window.
Postconditions	The av	vailability is add	ed to the "Availability" collection of the database.
Parameters	N/A		
Test Steps	1.	Navigate to the	e "Availability" page by clicking the "Availability"
		tab in the sideb	oar.
	2.	Click on the tin	meslot for April 20, at 7:00am.
	3.	Change the "End" field to "04/20/2022 12:00pm."	
	4.	Click the "Confirm" button.	
	5.	Wait 2 seconds	s for the "Success" message to disappear.
<b>Expected Results</b>	•	An alert saying "Success, Availability has been saved" appears	
		for 2 seconds.	
	•	The window re	efreshes the staff availability page.
	•	The entered av	ailability is shown on the calendar on April 20,
		2022, with the	title "07:00 AM – 12:00 PM."

Test Case ID: TC-105	<b>Test Case Name:</b> Staff User: Edit Availability	
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Created By: Chris Gumieny		Date Created: 4/4/2022	
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022	
Priority	Medium		
Preconditions	Follow the ste	ps in TC-101 and TC-104.	
	• Firestore is op	en in another window.	
	• The user is on	the "Availability" page.	
Postconditions	The availability is upo	lated in the "Availability" collection of the	
	database.		
Parameters	N/A		
Test Steps	1. Click on the e	1. Click on the existing availability for April 20, 2022, from 7:00am	
	to 12:00pm.		
	2. Click the "Edi	. Click the "Edit" icon in the top right of the pop-up window.	
	3. Change the "E	. Change the "End" field to "04/20/2022 1:00pm."	
	4. Click the "Cor	Click the "Confirm" button.	
	5. Wait 2 second	s for the "Success" message to disappear.	
<b>Expected Results</b>	An alert sayin	g "Success, Availability has been saved" appears	
	for 2 seconds.		
	• The window r	efreshes the staff availability page.	
	The updated a	vailability on April 20, 2022, will have the title	
	"07:00 AM –	01:00 PM."	

Test Case ID: TC-106		<b>Test Case Name:</b> Staff User: Delete Availability
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• Follow the steps in TC-101 and TC-104.	
	Firestore is open in another window.	
	• The user is on	the "Availability" page.

Postconditions	The deleted availability is removed from the "Availability" collection of	
	the database.	
Parameters	N/A	
Test Steps	1. Click on the existing availability for April 20, 2022.	
	2. Click on the "Delete" icon in the top right of the pop-up window.	
	3. Click on the "Delete" button to confirm the deletion.	
	4. Wait 2 seconds for the "Success" message to disappear.	
<b>Expected Results</b>	An alert saying "Success, Availability has been deleted" appears	
	for 2 seconds.	
	The window refreshes the staff availability page.	
	The deleted availability disappears from the schedule.	

Test Case ID: TC-107		Test Case Name: Staff User: View Announcements
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the steps of TC-96 and TC-101.	
Postconditions	N/A	
Parameters	N/A	
Test Steps	Navigate to the "View Announcements" page by clicking on the	
	"Announcements" tab and then clicking the "View Announcements"	
	button in the sidebar.	
<b>Expected Results</b>	A page that shows all the existing announcements for the organization.	

Test Case ID: TC-108		Test Case Name: Staff User: Update Profile
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	

Preconditions	• Follow the steps to TC-101.	
	Firestore is open in another window.	
Postconditions	The staff account is updated in the "StaffUser" collection of the database	
	with the new information.	
Parameters	First Name: David	
	• Last Name: Smiths	
	• Password: Testing123	
Test Steps	1. Navigate to the "Staff Profile" page by clicking on the user image	
	icon in the top right of the window and then clicking "Profile" in	
	the dropdown.	
	2. Change the "First Name" field to [First Name].	
	3. Change the "Last Name" field to [Last Name].	
	4. Enter [Password] in the "Password" and "Confirm Password"	
	fields.	
	5. Click the "Save" button.	
<b>Expected Results</b>	An alert that says "Success, Profile updated successfully."	
	The profile information is updated on the screen.	

Test Case ID: TC-109		Test Case Name: Staff User: Logout
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By:	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the steps in TC-101.	
Postconditions	The user is logged out of the account and will not be able to access any	
	pages that require the user to be logged in.	
Parameters	N/A	
Test Steps	1. Click on the user image icon in the top right of the window and	
	then click "Logout"	
	2. Click the "Yes	, logout!" button.

<b>Expected Results</b>	The user is signed out and is taken to the home page.
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# 9.4 Business User Second Login

Test Case ID: TC-85		Test Case Name: Business User: Login
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the ste	eps in TC-82 and TC-84.
	• The user is on	the login page.
Postconditions	N/A	
Parameters	Email: etimelyTest@gmail.com	
	• Password: Te	esting12345
Test Steps	1. Enter [Email] into the "Email" field.	
	2. Enter [Password] into the "Password" field.	
	3. Click the "Lo	gin" button.
<b>Expected Results</b>	The user is signed into a business account and is redirected to the	
	business dashboard.	

Test Case ID: TC-110		Test Case Name: Business User: View New
		Availability
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: C	hris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	• Follow the steps in TC-85, TC-90 and TC-104.	
	Firestore is open in another window.	
Postconditions	The "isApproved" field is set to "true" for the designated Availability	
	document in the "Availability" collection of the database.	
Parameters	N/A	

Test Steps	1. Navigate to the business dashboard by clicking the "Dashboard"	
	tab in the sidebar.	
	2. In the "Updates and Alerts" box, next to "Dave Smith", click the	
	"View" button.	
	3. Click the "OK" button.	
<b>Expected Results</b>	A pop-up window with the new availability for that employee.	
	• The next time the page is visited, that availability will no longer	
	be in the "Updates and Alerts" box.	

Test Case ID: TC-111		Test Case Name: Business User: View Team
		Availability
Created By: Chris C	dumieny	Date Created: 4/4/2022
<b>Last Updated By: </b> C	thris Gumieny	<b>Last Revision Date:</b> 4/15/2022
Priority	High	
Preconditions	Follow the steps in TO	C-85, TC-90 and TC-104.
Postconditions	N/A	
Parameters	N/A	
Test Steps	1. Navigate to the "Team Availability" page by clicking the	
	"Team" tab and then clicking the "Team Availability" button in	
	the sidebar.	
	2. Next to "Dave Smith", click the "View" button.	
	3. Click the "Cancel" button.	
<b>Expected Results</b>	A pop-up window with the availability for the selected employee.	

Test Case ID: TC-112		Test Case Name: Business User: Schedule
		Available Employee
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	

Preconditions	• Follow the steps in TC-85, TC-90 and TC-104.		
	• Firestore is open in a new window.		
Postconditions	The new shift is saved in the "Schedules" collection of the database.		
Parameters	N/A		
Test Steps	1. Navigate to the "Schedule" page by clicking on the "Schedule"		
	tab in the sidebar.		
	2. Click on the "Cashier" tab in the schedule page.		
	3. Click on the timeslot for April 20, 2022, at 8:00am.		
	4. In the "Employee" dropdown, select "Dave Smith (Tech		
	Support)."		
	5. Click the "Confirm" button.		
	6. Wait 2 seconds for the "Success" message to disappear.		
<b>Expected Results</b>	An alert that says "Success! Shift has been saved."		
	The window refreshes the schedule page.		
	The newly added shift is shown in the "Tech Support" tab on		
	April 20, 2022.		

Test Case ID: TC-113		Test Case Name: Business User: Delete Shift
Created By: Chris Gumieny		Date Created: 4/5/2022
Last Updated By: C	Thris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	<ul> <li>Follow the steps in TC-85 and TC-112.</li> <li>The user is on the "Schedule" page.</li> <li>Firestore is open in another window.</li> </ul>	
Postconditions	The deleted shift is removed from the "Schedules" collection of the database.	
Parameters	N/A	
Test Steps	1. Click on the ex	xisting shift for April 20, 2022, at 8:00am.

	2. Click on the "Delete" icon in the top right of the pop-up
	window.
	3. Click the "Delete" button to confirm the deletion.
	4. Wait 2 seconds for the "Success" message to disappear.
<b>Expected Results</b>	An alert that says "Success, Shift has been deleted."
	The window refreshes the schedule page.
	The existing shift disappears from the schedule.

Test Case ID: TC-1	14	Test Case Name: Business User: Delete
		Announcement
Created By: Chris C	Sumieny	Date Created: 4/5/2022
<b>Last Updated By: </b> C	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Medium	
Preconditions	Follow the step	ps in TC-85 and TC-96.
	Firestore is open	en in another window.
Postconditions	The deleted announce	ment is removed from the "Announcement"
	collection of the datab	pase.
Parameters	N/A	
Test Steps	1. Navigate to the	e "View Announcements" page by clicking on the
	"Announceme	nts" tab and then clicking on the "View
	Announcemen	its" button in the sidebar.
	2. On the existing	g announcement that was created in TC-96, click
	the "Delete" button.	
	3. Click the "Yes	s, delete it!" button.
<b>Expected Results</b>	An alert that sa	ays "Are you sure? You won't be able to revert
	this!"	
	• The page is ref	freshed, and the deleted announcement disappears
	from the page.	

Test Case ID: TC-1	15	<b>Test Case Name:</b> Business User: Terminate Staff
Created By: Chris Gumieny		Date Created: 4/4/2022
Last Updated By: (	Chris Gumieny	Last Revision Date: 4/15/2022
Priority	Low	
Preconditions	Follow the step	os in TC-85, TC-90 and TC-109.
	• Firestore is ope	en in another window.
Postconditions	The deleted staff user	is removed from the "StaffUser" collection of the
	database.	
Parameters	N/A	
Test Steps	1. Navigate to the	e "Team Management" page by clicking on the
	"Team" tab an	d then clicking on the "Team Management" button
	in the sidebar.	
	2. On the team m	anagement page, next to "Dave Smith," click the
	"Delete" butto:	n.
	3. Click "Yes, ter	rminate staff!"
	4. Click the "OK" button on the alert.	
<b>Expected Results</b>	An alert that sa	ays, "Are you sure? You will not be able to revert
	this!"	
	An alert that sa	ays "Deleted! Staff has been deleted."
	• The deleted sta	aff member will no longer show up on the page.

Test Case ID: TC-99		Test Case Name: Business User: Logout
Created By: Chris Gumieny		Date Created: 4/5/2022
Last Updated By: Chris Gumieny		Last Revision Date: 4/15/2022
Priority	High	
Preconditions	Follow the steps in TC-85.	
Postconditions	The user is logged out of the account and will not be able to access any	
	pages that require the user to be logged in.	
Parameters	N/A	

Test Steps	1. Click on the icon in the top right of the window and then click
	"Logout"
	2. Click the "Yes, logout" button.
<b>Expected Results</b>	The user is signed out and is taken to the home page.

## **Appendix**

### A.1 Database Setup

The following objects listed are steps to be completed before a test case is run. As of right now they are listed as steps to take within the application to do before a specific test case, except for DBS-00 which requires deleting all database information directly within Firebase. However, scripts may be written to automatically do each task as well.

<b>Database Setup ID</b>	Description	
DBS-00	Empty entire database from Firebase.	
DBS-01	Create and verify a business account with email	
	"etimelyTest@gmail.com" and password "Pass1234", and name	
	"eTimelyTest"	
	Creating this account should also create 5 different role types, with	
	names "Cashier", "Tech Support", "Manager", "Sales Associate" and	
	"Customer Service"	
DBS-02	Invite a staff user using first name "Dave", last name "Smith", email	
	"eimelycsc4996@gmail.com", and role "Cashier"	
	Open the link set to the email address and set password as "Test1234"	
DBS-03	Follow the steps of DBS-01, but do not open the link in the verification	
	email.	

DBS-04	Sign into the account created in DBS-02 and create the following		
	availabilities in the given order		
	May 22 <sup>nd</sup> from 12:30pm to 8:00pm		
	April 28th from 8:00am to 4:00pm		
	April 28 <sup>th</sup> from 5:00pm to 10:00pm		
DBS-05	Follow steps of DBS-02, but do not complete step 3		
DBS-06	Sign into the account created in DBS-02 and create the following		
	availability:		
	April 28 <sup>th</sup> from 8:00am to 4:00pm		
DBS-07	Sign into the account created in DBS-02 and create the following		
	availabilities in the given order:		
	• April 19, 2022, 8:00am-5:30pm		
	• April 20, 2022, 7:00am-12:00pm		
	• April 21, 2022, 10:00am-12:00pm		
	• April 22, 2022, 1:00pm-7:00pm		
	• April 23, 2022, 2:00pm-10:00pm		
	• April 24, 2022, 10:00am-2:00pm		
	• April 25, 2022, 6:30am-9:00am		

## A.2 Testing Schedule

#### A.2.1 Functional Testing Schedule

Tester	Items to Test	Tentative Testing Period
Matt Korte	TC-1 to TC-15	
	TC-116 to 119	
Chris Gumieny	TC-16 to TC-36	4/10/2022 to 4/14/2022
Caleb Obi	TC-37 to TC-53	
Samia Chowdhury	TC-54 to TC-68	

### A.2.2 Non-functional Testing Schedule

Tester	Items to Test	<b>Tentative Testing Period</b>
Matt Korte	TC-69 and TC-70	
Caleb Obi	TC-71 and TC-72	4/14/2022 to 4/15/2022
Chris Gumieny	TC-73 and TC-74	4/14/2022 to 4/13/2022
Samia Chowdhury	TC-75	

#### A.2.3 Integration Testing Schedule

Tester	Items to Test	<b>Tentative Testing Period</b>
Matt Korte	TC-76	
Caleb Obi	TC-77	4/14/2022 to 4/15/2022
Chris Gumieny	TC-78	

#### A.2.4 System Testing Schedule

Tester	Items to Test	Tentative Testing Period
Matt Korte	TC-79 to TC-115	4/15/2022 to 4/18/2022