

Team 18: Project Test Plan

CS408

CorkBoard

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Functional Test Cases

Functional Requirement: 1

As a user, I want to be able to view announcements.

Functional Test Cases

Test ID	1
Title	User Viewing Announcements Test
Instructions	Look at dashboard of Corkboard
Expected Results	See announcements
Severity	Critical

Equivalence Test Cases

Test ID	2
Title	Announcement Overflow
Instructions	Publish announcements file large enough to not fit on screen all at once
Expected Results	Announcement view should slowly scroll through entire announcement list
Severity	Critical

Boundary Test Cases

Test ID	3
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Title	No Announcements
Instructions	Publish announcements file with no announcements
Expected Results	Replace announcements feed with notification showing that there are no current announcements
Severity	Workaround

Functional Requirement: 2

As an RA, I want to be able to add announcements.

Functional Test Cases

Test ID	4
Title	RA Add Announcements Test
Instructions	Upload dummy announcements file and pull announcements from dummy file
Expected Results	The field for announcements should displays the announcements.
Severity	Important

Equivalence Test Cases

Test ID	5
Title	Empty announcement file
Instructions	Upload empty announcement file. Run program
Expected Results	The field that displays announcements should read "No Announcements"
Severity	Important

Boundary Test Cases

Test ID	6
Title	Invalid announcement format
Instructions	Upload test announcement file with invalid format. Run the program

Expected Results	The field that displays announcements should read "Error: Invalid announcement format"
Severity	Important

Functional Requirement: 3

As a user, I want announcements to be updated frequently.

Functional Test Cases

Test ID	7
Title	Verify announcement update responsiveness
Instructions	Publish changes to online page hosting announcements
Expected Results	Verify that changes have propagated to corkboard on next refresh cycle
Severity	Critical

Equivalence Test Cases

Test ID	8
Title	Pull time average
Instructions	Let the announcements update multiple times then check the average interval between updates
Expected Results	Average interval between updates is reasonably close to refresh rate
Severity	Critical

Boundary Test Cases

Test ID	9
Title	No announcements Update
Instructions	Delete all announcements from online hosting page

Expected Results	Announcements field display “No Announcements”
Severity	Critical

Functional Requirement: 4

As a user I want to be able to view the CityBus schedule.

Functional Test Cases

Test ID	10
Title	User View CityBus Schedule
Instructions	Look at dashboard of Corkboard
Expected Results	Visually see the CityBus Schedule representation
Severity	Critical

Boundary Test Cases

Test ID	11
Title	Invalid Schedule
Instructions	Create invalid schedule pull
Expected Results	Visually see the CityBus Schedule representation
Severity	Critical

Equivalence Test Cases

Test ID	12
Title	Display of Schedule
Instructions	Pull CityBus schedule and process it
Expected Results	CityBus schedule should be displayed on screen
Severity	Critical

Functional Requirement: 5

As a user, I want to be able to view the temperature for the day.

Functional Test Cases

Test ID	13
Title	User View Temperature
Instructions	Start Corkboard with a properly configured weather location and a network connection. Look at dashboard of Corkboard.
Expected Results	Visually see the correct temperature
Severity	Critical

Equivalence Test Cases

Test ID	14
Title	Null Weather Data
Instructions	Look at dashboard of Corkboard.
Expected Results	Weather fields should display "No weather found"
Severity	Important

Equivalence Test Cases

Test ID	15
Title	Invalid Data
Instructions	Look at dashboard of Corkboard.
Expected Results	Weather fields should not display unrealistic temperatures
Severity	Workaround

Boundary Test Cases

Test ID	16
Title	Weather download fail
Instructions	Set weather API URL to a non-existing website
Expected Results	Weather fields should display "Error: could not connect to site"
Severity	Important

Functional Requirement: 6

As a user, I want to be able to view the weather for the day.

Functional Test Cases

Test ID	17
Title	View today's weather
Instructions	Start CorkBoard with a configured weather location and a network connection
Expected Results	Weather for the day is displayed
Severity	Critical

Equivalence Test Cases

Test ID	18
Title	No URL
Instructions	Clear the weather API URL and run program
Expected Results	The field that displays weather should say "Error: No weather API URL"
Severity	Critical

Boundary Test Cases

Test ID	19
Title	Invalid API URL
Instructions	Change API URL to an invalid address and run program
Expected Results	Weather field should say "Error: invalid API URL"
Severity	Critical

Functional Requirement: 7

As the application, I want the weather information to update periodically.

Functional Test Cases

Test ID	20
Title	Mock weather information
Instructions	Create mock weather information for consumption by the application
Expected Results	Weather field should display the mock information
Severity	Critical

Equivalence Test Cases

Test ID	21
Title	Pull Time Average
Instructions	Pull the weather multiple times and keep track of the average interval between pulls
Expected Results	Average interval should be close to refresh rate
Severity	Critical

Boundary Test Cases

Test ID	22
Title	No Weather
Instructions	Give bad URL to the weather API call
Expected Results	Weather section should display error on next refresh
Severity	Critical

Functional Requirement: 8

As the application, I want the CityBus schedule to update periodically.

Functional Test Cases

Test ID	23
Title	CityBus Periodic Update
Instructions	Look at dashboard of Corkboard CityBus schedule Check date

Expected Results	Date displayed for CityBus schedule is the current date
Severity	Important

Boundary Test Cases

Test ID	24
Title	Preferred stop has been changed.
Instructions	Change preferred stop in settings file.
Expected Results	When updating the preferred stop changes to the new preferred stop.
Severity	Important.

Functional Requirement: 9

As a user, I want all information to display on a single screen.

Functional Test Cases

Test ID	25
Title	User Single Screen Display
Instructions	Look at dashboard of Corkboard
Expected Results	All components are displayed on one screen
Severity	Critical

Equivalence Test Cases

Test ID	26
Title	No announcements
Instructions	Look at dashboard of Corkboard
Expected Results	All components are displayed on one screen
Severity	Important

Test ID	27
Title	No image
Instructions	Ensure no image is chosen in config file.
Expected Results	A default blank image is displayed
Severity	Workaround

Boundary Test Cases

Test ID	28
Title	Large amounts of announcements
Instructions	Upload announcement file with a large number of announcements
Expected Results	Announcements should cycle through all
Severity	Important

Functional Requirement: 10

As a user, I want the current time at a glance.

Functional Test Cases

Test ID	29
Title	User Current Time
Instructions	Look at dashboard of Corkboard
Expected Results	Current time displayed is the correct current time (West Lafayette USA)
Severity	Important

Boundary Test Cases

Test ID	30
Title	Time shift. (Daylight savings).
Instructions	Look at dashboard of Corkboard
Expected Results	Correct time is displayed after time has changed drastically.
Severity	Workaround

Functional Requirement: 11

As a user, I want the current date at a glance

Functional Test Cases

Test ID	31
Title	User Current Date
Instructions	Look at dashboard of CorkBoard
Expected Results	Current date displayed is correct current date
Severity	Important

Boundary Test Cases

Test ID	32
Title	Date change.
Instructions	User changes date on computer, and looks at CorkBoard.
Expected Results	Correct date is displayed after date has been changed.
Severity	Important

Functional Requirement: 12

As a user, I want to see the top news headlines

Functional Test Cases

Test ID	33
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Title	News update functionality
Instructions	Let the system run with a valid RSS feed
Expected Results	System should pull headlines from RSS feed, display on scrolling ticker
Severity	Critical

Equivalence Test Cases

Test ID	34
Title	Ensure news ticker functions properly
Instructions	Provide dummy test data update to news ticker in display subsystem
Expected Results	News ticker displays test data completely
Severity	Critical

Boundary Test Cases

Test ID	35
Title	Null new URL
Instructions	Set the new feed URL to nothing and run the program.
Expected Results	The new feed field should say "No new feed available"
Severity	Important

Functional Requirement: 13

As the application, I want to be able to be self sustaining and not crash after long periods of time.

Functional Test Cases

Test ID	36
Title	Long use time

Instructions	Let the program run for a few minutes (let a few dozen updates happen)
Expected Results	Program should not crash/close during the time.
Severity	Critical

Equivalence Test Cases

Test ID	37
Title	Change information live
Instructions	While the program is running, change the announcements in the online file
Expected Results	The announcement field should display the updated announcements
Severity	Important

Boundary Test Cases

Test ID	38
Title	Lose internet connection
Instructions	While the program is running, disconnect from internet
Expected Results	Fields that require an internet connection should change to "Error: No internet connection" at the next refresh cycle
Severity	Critical

Functional Requirement: 14

As an RA, I want some level of customization over the dashboard's layout.

Functional Test Cases

Test ID	39
Title	Verify layout change
Instructions	Select different layout from settings

Expected Results	Layout changed according to layout selected
Severity	Important

Test ID	40
Title	Revert changes
Instructions	Select “restore default layout” in settings
Expected Results	Corkboard default layout will return
Severity	Workaround

Functional Requirement: 15

As an RA, I want an obvious error message display if any information cannot be updated.

Functional Test Cases

Test ID	41
Title	Information update errors
Instructions	Disconnect device from internet and run the program.
Expected Results	Each field that requires internet connection for data should display “Error: No Internet Connection”
Severity	Critical

Test ID	42
Title	Invalid API information
Instructions	Feed in fake bad information from the APIs being called
Expected Results	For each field display errors “Invalid response from APIs”
Severity	Critical

Equivalence Test Cases

Test ID	43
Title	No announcements found error
Instructions	Rename the file with the announcements. Run the program
Expected Results	The field that shows announcements should say "Error: No Announcements Found"
Severity	Important

Boundary Test Cases

Test ID	44
Title	No weather information found error
Instructions	Set weather station to "QWER" and run program
Expected Results	The field that displays weather information should say "Error: No Weather Information Found"
Severity	Important

Boundary Test Cases

Test ID	45
Title	No bus schedule found error
Instructions	Set weather station to invalid bus schedule URL and run
Expected Results	The field that displays weather information should say "Error: No Bus Schedule Found"
Severity	Important

Functional Requirement: 16

As an RA, I want to remove old announcements

Functional Test Cases

Test ID	46
Title	RA Announcement Removal
Instructions	Go to online file Delete announcement line Look at dashboard of Corkboard
Expected Results	Desired announcement was removed from Corkboard
Severity	Important

Equivalence Test Cases

Test ID	47
Title	All announcements removed
Instructions	Go to online file Delete all announcement lines Look at dashboard of Corkboard
Expected Results	Announcement field should display "No Announcements"
Severity	Important

Functional Requirement: 17

As an RA, I want to edit announcements

Functional Test Cases

Test ID	48
Title	RA Announcement Edit
Instructions	Go to online "Announcements" file Edit announcement line Look at dashboard of Corkboard
Expected Results	Desired announcement changed
Severity	Important

Functional Requirement: 18

As the application, I will update the news periodically

Functional Test Cases

Test ID	49
Title	News Update
Instructions	Set news source in config Set "News Update Time Interval" option in config Start Corkboard with internet connection Look at dashboard of Corkboard after time interval
Expected Results	Corkboard's news feed updates with new headlines periodically
Severity	Critical

Test ID	50
Title	Verify Correct Interval
Instructions	Let the news update multiple times and keep track of average update interval
Expected Results	Average interval should be close to update interval
Severity	Critical

Functional Requirement: 19

As an RA, I want to choose the color of the board

Functional Test Cases

Test ID	51
Title	Color Scheme
Instructions	Set color scheme in config Start Corkboard
Expected Results	Corkboard should display in the proper color scheme
Severity	Important

Functional Requirement: 20

As an RA, I want to be able to import/export settings

Functional Test Cases

Test ID	52
Title	Export file
Instructions	Go to setting panel and click export
Expected Results	File containing all settings should generate in the directory of the program
Severity	Important

Equivalence test cases

Test ID	53
Title	Import file
Instructions	Place settings file in directory of program. Start program.
Expected Results	Program should open with the correct settings
Severity	Important

Test ID	54
Title	2 import files
Instructions	Place 2 different settings file in directory of program. Start program.
Expected Results	Program should open with the correctly without crashing or causing an error.
Severity	Important

Boundary test cases

Test ID	55
Title	No settings file
Instructions	Delete or move settings file out of the directory. Run the program.
Expected Results	Program should open with the default settings and generate a

	settings file.
Severity	Critical

Functional Requirement: 21

As a user I want to be able to see the most recent tweets from the Purdue Alerts Twitter account

Functional Test Cases

Test ID	56
Title	Twitter feed displays
Instructions	Input the twitter feed in to the settings file. Run the program
Expected Results	Program should open with the twitter feed visible.
Severity	Critical

Equivalence Test Cases

Test ID	57
Title	Correct twitter feed
Instructions	Compare the program twitter feed to the actual feed
Expected Results	The most recent tweets should be the same
Severity	Important

Boundary Test Cases

Test ID	58
Title	Invalid twitter feed
Instructions	Input an invalid twitter URL
Expected Results	Program twitter feed should display "No Twitter Feed Available"
Severity	Important

Functional Requirement: 22

As a user I want to view an image displayed on the board.

Functional Test Cases

Test ID	59
Title	Image Display Test
Instructions	Start Corkboard with an internet connection and an image link set in config Look at display
Expected Results	Corkboard should display image, properly sized, keeping dimensions
Severity	Important

Equivalence Test Cases

Test ID	60
Title	Large Image
Instructions	Add a large image to the program and run the program
Expected Results	The program should display a scaled version of the image
Severity	Important

Boundary Test Cases

Test ID	61
Title	Invalid/Corrupted image
Instructions	Add an invalid or corrupted image. Run the program
Expected Results	Image field should display "Error: Could not display image"
Severity	Important

Functional Requirement: 23

As an RA I want to be able to choose an image to be posted on the board.

Functional Test Cases

Test ID	62
Title	Set Image
Instructions	Set valid image url in config Start Corkboard with internet connection
Expected Results	Corkboard displays chosen image with proper formatting and dimensions
Severity	Important

Equivalence Test Cases

Test ID	63
Title	Display image
Instructions	Run the program
Expected Results	The image displayed should be the set image
Severity	Critical

Boundary Test Cases

Test ID	64
Title	Null image selection
Instructions	Select a missing image. Run the program.
Expected Results	Image field should display "Error: image not found"
Severity	

Functional Requirement: 24

As a user, I want to view active weather alerts

Functional Test Cases

Test ID	65
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Title	Fake Weather Alert
Instructions	Run script imitating weather alert response from weather API, send fake alert to display subsystem
Expected Results	Corkboard should show weather alert in red ticker at top of screen
Severity	Critical

Equivalence Test Cases

Test ID	66
Title	Weather Alert Information
Instructions	Run script imitating weather alert response from weather API
Expected Results	Corkboard's weather alert should include details such as time and type and location from the weather API
Severity	Important

Boundary Test Cases

Test ID	67
Title	No Weather Alert
Instructions	Do not run script imitating weather alert response from weather API
Expected Results	No weather alert should display on Corkboard
Severity	Important

Functional Requirement: 25

As an RA, I want to change the refresh rate

Functional Test Cases

Test ID	68
Title	Change refresh setting
Instructions	Change the refresh rate in the settings file

Expected Results	The program should refresh at the set interval
Severity	Workaround

Equivalence Test Cases

Test ID	69
Title	Compare refresh rate
Instructions	Run the program
Expected Results	The time between refresh cycles should be the same as the previous
Severity	Workaround

Boundary Test Cases

Test ID	70
Title	No refresh time set
Instructions	Clear the refresh rate in settings file
Expected Results	The program should refresh at the default rate
Severity	Workaround

Test ID	71
Title	Zero value refresh rate
Instructions	Set the refresh rate to 0 and run the program
Expected Results	The program should refresh at the default rate.
Severity	Workaround

Test ID	72
Title	Negative value refresh rate

Instructions	Set the refresh rate to -1 and run the program
Expected Results	The program should refresh at the default rate.
Severity	Workaround

Functional Requirement: 26

As an RA, I want to add a URL to get announcements from.

Functional Test Cases

Test ID	73
Title	Add URL
Instructions	Go to settings and add URL to file to pull announcements from
Expected Results	Announcements from desired URL should show on Corkboard
Severity	Critical

Equivalence Test Cases

Test ID	74
Title	Invalid URL
Instructions	Set the URL in the settings page to pull announcements from an invalid URL
Expected Results	An error message should display notifying user that URL is invalid
Severity	Important

Boundary Test Cases

Test ID	75
Title	No URL
Instructions	Remove the URL in the settings page that pulls announcements
Expected Results	An error should display showing that no URL entered, no announcements should show
Severity	Workaround

Functional Requirement: 27

As an RA, I want to change the location weather information is pulled from

Functional Test Cases

Test ID	76
Title	Change weather information source
Instructions	In the settings file set the url location of the weather data to pull. And the area to monitor the weather of.
Expected Results	The weather data should be pulled from the url location and show the weather for the area chosen.
Severity	Critical

Equivalence Test Cases

Test ID	77
Title	Invalid weather url.
Instructions	Set url to a non-valid weather source.
Expected Results	An error should be displayed stating that the url is invalid.
Severity	Important

Test ID	78
Title	Blank weather url.
Instructions	Set url to a blank url.
Expected Results	An error should be displayed stating that the url is blank.
Severity	Important

Boundary Test Cases

Test ID	79
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Title	Empty local area.
Instructions	Input valid weather source.
Expected Results	Error should be displayed stating no local area was inputted.
Severity	Important

Functional Requirement: 28

As an RA, I want to set the twitter feed

Functional Test Cases

Test ID	80
Title	Set the twitter url and account
Instructions	Set the twitter page url you want to show in configuration file.
Expected Results	CorkBoard displays twitter feed from selected twitter page.
Severity	Critical

Equivalence Test Cases

Test ID	81
Title	Check invalid twitter page.
Instructions	Set the twitter page url to a non-existing twitter page..
Expected Results	An error should pop up stating incorrect url was inputted.
Severity	Critical

Test ID	82
Title	Check blank url
Instructions	Set the twitter page url to an blank url in the config file.
Expected Results	An error should pop up stating the url was missing.
Severity	Critical

Boundary Test Cases

Test ID	83
Title	Private twitter account.
Instructions	Set url for a twitter page that is private in the config file
Expected Results	Error stating the page is private and unable to be viewed.
Severity	Important.

Functional Requirement: 29

As an RA, I want to set the bus schedule

Functional Test Cases

Test ID	84
Title	Verify Bus Tracker Functionality
Instructions	Set preferred bus stop in configuration file
Expected Results	CorkBoard displays time of next bus to arrive for each route
Severity	Critical

Test ID	85
Title	No Network Connection
Instructions	Begin with properly configured bus stop but no network connection
Expected Results	Display shows error identifying connection loss as reason for no data
Severity	Important

Equivalence Test Cases

Test ID	86
Title	Too many (>5?) routes to display
Instructions	Select stop with more than 5 routes
Expected Results	Display prioritizes showing routes that arrive soonest
Severity	Important

Test ID	87
Title	No Available Routes
Instructions	Select stop with no routes currently running
Expected Results	Display shows error message indicating no running buses
Severity	Workaround

Boundary Test Cases

Test ID	88
Title	Invalid Stop Selection
Instructions	Provide an invalid stop name during configuration
Expected Results	Display an error message indicating failure to find stop.
Severity	Workaround