

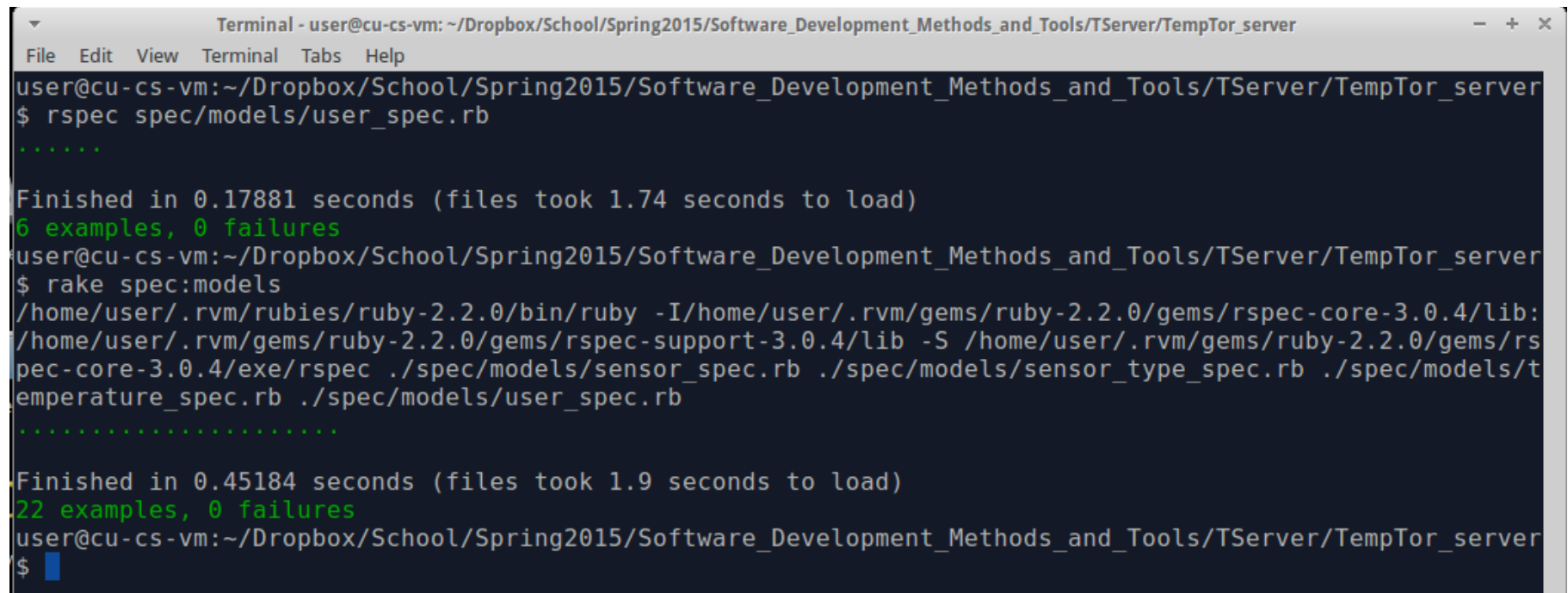
Title: TempTor: Temperature Monitoring System

Vision: To provide the easiest way to monitor temperatures in commercial equipment and display them in a user friendly format.

Who: Erin Boeger, Sutton Cowperthwaite, Travis Dowdy, Maryjane Clark

Automated Tests: Tool used; Rspec (<http://rspec.info/>)

Code required for testing is in the server repo (link is at the end of the document). To run, you need to have Ruby on Rails set up, and you need to run bundle install to ensure all required gems are installed. The commands below are examples of what can be run. The first command runs all tests for “user” while the second command runs all tests. The tests are to validate that the database is functioning properly. (A demonstration to see the tests being run may be easiest.)

A terminal window titled "Terminal - user@cu-cs-vm: ~/Dropbox/School/Spring2015/Software_Development_Methods_and_Tools/TServer/TempTor_server". The terminal shows two RSpec test runs. The first run is for spec/models/user_spec.rb, which finishes in 0.17881 seconds with 6 examples and 0 failures. The second run is for rake spec:models, which finishes in 0.45184 seconds with 22 examples and 0 failures. The terminal output is as follows:

```
user@cu-cs-vm:~/Dropbox/School/Spring2015/Software_Development_Methods_and_Tools/TServer/TempTor_server
$ rspec spec/models/user_spec.rb
.....

Finished in 0.17881 seconds (files took 1.74 seconds to load)
6 examples, 0 failures
user@cu-cs-vm:~/Dropbox/School/Spring2015/Software_Development_Methods_and_Tools/TServer/TempTor_server
$ rake spec:models
/home/user/.rvm/rubies/ruby-2.2.0/bin/ruby -I/home/user/.rvm/gems/ruby-2.2.0/gems/rspec-core-3.0.4/lib:
/home/user/.rvm/gems/ruby-2.2.0/gems/rspec-support-3.0.4/lib -S /home/user/.rvm/gems/ruby-2.2.0/gems/rs
pec-core-3.0.4/exe/rspec ./spec/models/sensor_spec.rb ./spec/models/sensor_type_spec.rb ./spec/models/t
emperature_spec.rb ./spec/models/user_spec.rb
.....

Finished in 0.45184 seconds (files took 1.9 seconds to load)
22 examples, 0 failures
user@cu-cs-vm:~/Dropbox/School/Spring2015/Software_Development_Methods_and_Tools/TServer/TempTor_server
$
```

User Acceptance Tests:

UR.01

	Project Name: TempTor					
	User Acceptance Tests					
	Test Case ID:	UR.01	Test Designed by:	Sutton/ Maryjane		
	Test Priority (Low/Medium/High):	High	Test Design date:	4/1/2015		
	Module Name:	View Reports	Test Executed by:	Sutton / Maryjane		
	Test Title:	Verify Report	Test Execution date:	4/1/2015		
	Description:	As a user, I want to be able to go to a website to view reports of the temperature data so that I can see if my appliances are working properly				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (P/F)	Notes
	1Open Website	https://temptor.herokuapp.com/	Webpage Opens	Webpage Opens	Pass	Great Job
	2Click Menu to get pull down menu.	N/A	Menu Opens	Menu Opens	Pass	Menu only closes if clicked again
	3Click on Sensor in Menu	N/A	Goes to Sensor Page	Goes to Sensor Page	Pass	
	4On Active Sensor Page: Click Sensor wanted in side bar	Clicked Stove to test	Opens Stove Sensor Page	Opens Stove Sensor Page	Pass	Page is there but not set up yet
	5Find report of temperture data	Under Description	Graph or list of temp data	Nothing	Fail	Sensor not linked to Server yet
						UR.01 Fails because Sensors are not connected

UR.02

Project Name: TempTor						
User Acceptance Tests						
Test Case ID:		UR.02	Test Designed by:		Sutton/ Maryjane	
Test Priority (Low/Medium/High):		Low	Test Design date:		4/1/2015	
Module Name:		Email Alert: Range	Test Executed by:		Sutton / Maryjane	
Test Title:		Email Alerts:Range	Test Execution date:		4/1/2015	
Description:		As a user, I want to be able to get email alerts so that I know if the temperature goes out of a set range.				
Step	Test Steps	Test Data	Expected Results	Actual Result	Status (Pass/Fail)	Notes
	1Open Website	https://temptor.herokuapp.com/	Webpage Opens	Webpage Opens	Pass	Great Job
	2Click Menu to get pull down menu.	N/A	Menu Opens	Menu Opens	Pass	Menu only closes if clicked again
	3Click on Sensor in Menu	Go to User Page	Goes to User Page	Goes to User Page	Pass	
	4Make New User	First Name: Sutton				
		Last Name: Cowperthwaite:	New User Made	New User Made	Pass	Server has user creation
		Email: csc018@bucknell.edu				
	5Set sensor to correct reading on webpage.	Set freezer: temp=0 degrees C	User should be able to set temperture range	User is not able to enter temperture range	Fail	No sensor range in sensors
	6Place sensor in warm place.	Hold sensor in room temperature area.	Sensor reads proper temp	Sensor reads proper temp	Pass	Sensor reads properly
	7Check email for alert to sensor warming.	Log into email.	User receives email alert.	User does not receive email.	Fail	UR.02 Fails need to input email alert system

UR.03

Project Name: TempTor						
User Acceptance Tests						
Test Case ID:		UR.03	Test Designed by:		Sutton/ Maryjane	
Test Priority (Low/Medium/High):		High	Test Design date:		4/1/2015	
Module Name:		Remove / Add Sensor	Test Executed by:		Sutton / Maryjane	
Test Title:		Sensor Change	Test Execution date:		4/1/2015	
Description:		As a user, I want to be able to add/remove sensors, so that I can manage all my appliances if I expand or contract my business.				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (P/F)	Notes
	1Open Website	https://temptor.herokuapp.com/	Webpage Opens	Webpage Opens	Pass	Great Job
	2Click Menu to get pull down menu.	N/A	Menu Opens	Menu Opens	Pass	Menu only closes if clicked again
	3Click on Sensor in Menu	N/A	Goes to Sensor Page	Goes to Sensor Page	Pass	
	4On Active Sensor Page: Click New Sensor		Open New Sensor Page	Open New Sensor Page	Pass	
	5Enter in information of Sensor	Name: Heater IP:10.201.86.135 Description: In heater Type: Indoor Enviroment	Data Enters	Data Enters	Pass	
	6Click Create Sensor	N/A	Creates Sensor	Creates Sensor	Pass	First have of UR.03 Passes
	7Delete Sensor	Using Heater Clicked Edit	Delete Sensor With Button	No delete Button	Fail	UR.03 Fails becuase it can't delete Sensors

UR.04

Project Name: TempTor						
User Acceptance Tests						
Test Case ID:		UR.04	Test Designed by:		Sutton/ Maryjane	
Test Priority (Low/Medium/High):		Medium	Test Design date:		4/1/2015	
Module Name:		TimeStep Change	Test Executed by:		Sutton / Maryjane	
Test Title:		TimeStep	Test Execution date:		4/1/2015	
Description:		As a user, I want to be able to adjust the sensor time frequency readings so that the sensor is reporting properly for each appliance				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (P/F)	Notes
1	Look on website to find way to run sensor code	https://temptor.herokuapp.com/	Button to run code	No Button	Fail	Need to add button to run sensor code
2	In sensor run code	run TempTor.py	Code runs	Code Runs	Pass	
3	Script ask questions and inputs work	For units: Celsuis For time set: added 20 secs then added 40 secs	Inputs enter correctly code outputs temp data	Inputs are accepted Outputs temp data at right time step (1 min)	Pass	UR.04 passes becuase user can adjust time step, but needs a way to on website

UR.05

	Project Name: <u>TempTor</u>					
	User Acceptance Tests					
	Test Case ID:	UR.05	Test Designed by:	Sutton/ Maryjane		
	Test Priority (Low/Medium/High):	Medium	Test Design date:	4/1/2015		
	Module Name:	Precision	Test Executed by:	Sutton / Maryjane		
	Test Title:	Set Precision	Test Execution date:	4/1/2015		
	Description:	As a user, I want to be able to adjust the sensor data precision so that the sensor is reporting properly for each appliance.				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (P/F)	Notes
	1 Search for current precision on web page.	Set web page Precision tab	User is able to alter decimal precision.	User is unable to locate Precision tab.	Fail	
	2 Set decimal precision of readings in temperature sensor code.	When prompted, user enters desired decimal precision.	User successfully alters precision.	User is able to alter decimal precision.	Pass	
	3 Check temperature output in Python terminal code.	Run Python code displaying temperature data.	The precision is altered to desired decimal places.	Precision is altered correctly.	Pass	

UR.06

	Project Name: <u>TempTor</u>					
	User Acceptance Tests					
	Test Case ID:	UR.06	Test Designed by:	Sutton/ Maryjane		
	Test Priority (Low/Medium/High):	Medium	Test Design date:	4/1/2015		
	Module Name:	Email Alert	Test Executed by:	Sutton / Maryjane		
	Test Title:	Email Alert	Test Execution date:	4/1/2015		
	Description:	As a user I want to receive an email if my sensor stops working so that I can repair or replace it.				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (P/F)	Notes
	1 Open Website	https://temptor.herokuapp.com/	Webpage Opens	Webpage Opens	Pass	Great Job
	2 Click Menu to get pull down menu.	N/A	Menu Opens	Menu Opens	Pass	Menu only closes if clicked again
	3 Click on Sensor in Menu	Go to User Page	Goes to User Page	Goes to User Page	Pass	
	4 Make New User	First Name: Sutton Last Name: Cowperthwaite Email: csc018@bucknell.edu	New User Made	New User Made	Pass	Server has user creation
	5 Link sensors	Find Button to make email alert link sensor to user	Links User and Sensor for alert set temperature range	No linkage enter temperature range	Fail	
	6 Run then stop sensor	turn on sensor, run code, turn off	Sensor sends data then stops	Sensor sends data then stops	Pass	Sensor reads properly
	7 Check email for alert to sensor warning.	Log into email.	User receives email alert.	User does not receive email.	Fail	UR.06 Fails need to input email alert system

VCS: Git and Github

https://github.com/SullysMustyRuby/TempTor_sensors.git

https://github.com/SullysMustyRuby/TempTor_server.git