Module testing and Integration testing

Module test:

Module testing is defined as a software testing type, all the individual subprograms, subroutines, classes, or procedures in "Portable Calendar" will be checked. There will be 8 test case groups: Create Event, Calendar Page, Clear All Events, Remove, Edit Email, Alarm Preference, Dark Mode, Language.

Integration test:

In "Portable Calendar", only the "Calendar page" will be further called after the "Create event". There are no more further sub processes will be processed. Thus, we need to use one method. Design test cases to check all the parameters which are being passed through the interface with these two artifacts.

Test case group: Create Event

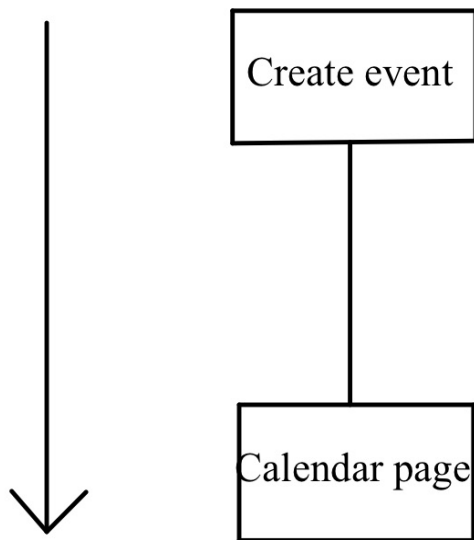| Test Cases	Input	Result	Comment	Date	Tester
No Input	Click Create Event	Message' Event has been created successfully' is shown on top of the screen. User is taken to the Calendar page.	Should deliver an error message indicating that the user should at least choose the start or end time.	Aug 1st	Ziyan Yang
Disordered Date	Enter a end time prior to the start time	Message' Event has been created successfully' is shown on top of the screen. User is taken to the Calendar page.	Should deliver a error message and ask the user to choose the time in order	Aug 1st	Ziyan Yang
Normal Case	Enter the title, location. Choose start time and end time in order. Turn on Alarm and Email and click CREATE EVENT	Message' Event has been created successfully' is shown on top of the screen. User is taken to the Calendar page.	The result meets our expectation	Aug 1st	Ziyan Yang

No-notifications	Enter the title, location. Choose start time and end time in order. Keep the Alarm and Email off and Click CREATE EVENT	Message' Event has been created successfully' is shown on top of the screen. User is taken to the Calendar page.	It is better to have a reminder for user that they may need to turn on one of the notifications	Aug 1st	Ziyan Yang
Duplicate events	Add a event that is exactly the same with a existing event	Message' Event has been created successfully' is shown on top of the screen. User is taken to the Calendar page.	Should fail to add the event and remind the user a same event has already been added	Aug 1st	Ziyan Yang
Disordered Date	Enter a end time prior to the start time	The end time is highlighted in red. The message 'Whoops, End time should be after Start time' is displayed at the bottom	The result meets our expectation	Aug 2nd	Ziyan Yang
No Input	Click Create Event	All of the information missing is highlighted in red. The message 'Whoops, You need to enter the title' is displayed	The result meets our expectation	Aug 2nd	Ziyan Yang
Everything except location	Add an event and enter all the information except the location	The message 'Whoops, You need to enter the location' is displayed. The location is highlighted in red	The result meets our expectation	Aug 2nd	Ziyan Yang
Everything except the time	Add an event and enter all the information except the time	The message 'Whoops, You need to enter the time' is displayed. The missing blanks are highlighted in red	The result meets our expectation	Aug 2nd	Ziyan Yang

Test case group: Calendar Page

Note:

Before the code fixing, the empty input is valid in the Calendar Page. After fixing it on Aug 2nd, if the input is empty in the Create Event page, that will display the message with highlighting in the missing blanks. Thus, there will be no test Cases for "No input" in the Calendar Page.

Test Cases	Input	Result	Comment	Date	Tester
Refresher	Pull the page down and then release	The Calendar page will refresh.	The result meets our expectation	Aug 1st	Dekai Meng
Infinite Scroll	Add 3 or more events and scroll up and down.	The Calendar page will go up and down according to the user	The result meets our expectation	Aug 1st	Dekai Meng
Several events with different start date and same start time	Add four events with start dates being Aug 2st, 1st, 3rd and 4th respectively and start time being 11:11 am for all events	The Calendar page automatically sorts the four events in time order, i.e. the event with date Aug 1st comes first and is followed with Aug 2nd, 3rd and 4th	The result meets our expectation	Aug 1st	Dekai Meng
Several events with empty input	Add four events with empty start dates and start time	The Calendar page does nothing for empty events.	The empty events should not going inside the Calendar Page	Aug 1st	Dekai Meng
Several events with same start date but different start time	Add four events with the start date being Aug 1st. But the start time is 11:50 am, 8:30 am, 2:30 pm and 8:30 pm	The Calendar page automatically sorts the four events in time order, i.e. the event with date Aug 1st and start time 8:30 am comes first, and then 11:50am, 2:30pm and 8:30pm.	The result meets our expectation	Aug 2nd	Dekai Meng
Several events with same start date and start time	Add four events with the start date being Aug 1st, and start time being 11:11 am.	The Calendar page automatically sorts the four events by the time they are created. The event that is created first comes first on the Calendar page	The result meets our expectation	Aug 2nd	Dekai Meng
Several events with empty input	All empty events cannot add with the empty input	The events needed valid input in the Create event page.	The results meets our expectation	Aug 2nd	Dekai Meng

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            ┌──────────────┐
  │         │ Create event │
  │         └──────────────┘
  │                │
  │                │
  │                │
  ▼         ┌──────────────┐
            │Calendar page │
            └──────────────┘
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Create event, Calendar page

In our cases, the integration test and module test will be the same for the Test case group:

"Create Event" and "Calendar Page", which are passing through the interface with those two

artifacts. The other modules test will be provided below:

Test case group: CLEAR ALL EVENTS

Note: In the first version of the product on Aug 1st, there is an event called Developing calendar

that already exists on the calendar page. In the second version, we delete this event and there is

nothing on the calendar page at start.

Test Cases	Input	Result	Comment	Date	Tester
No additional events	Click CLEAR ALL EVENTS	The initial event is still there	The initial event should be gone.	Aug 1st	Dekai Meng
Additional Events	Click CLEAR ALL EVENTS	Only the initial event stays on the Calendar page	The initial event should be gone as well	Aug 1st	Dekai Meng

No additional events	No Input as there is no CLEAR ALL EVENTS button	The Calendar page remains blank with the message 'Whoops! It seems you have not created any event yet. Go and create one !'	The result meets our expectation	Aug 2nd	Ziyan Yang
Additional Events	Click CLEAR ALL EVENTS	All events are gone	The result meets our expectation	Aug 2nd	Ziyan Yang

Test case group: Remove

Note: In the first version of the product on Aug 1st, there is an event called Developing calendar that already exists on the calendar page. In the second version, we delete this event and there is nothing on the calendar page at start. Therefore, the first test case Remove initial events does not exist.

Test Cases	Input	Result	Comment	Date	Tester
Remove initial events	Click Remove in the Developing calendar event	No response. The event is still there	The event should be gone.	Aug 1st	Ziyan Yang
Remove additional events	Click Remove in the new added event	The message "Delete this event?" is displayed and the user clicks "YES". Then the specific event is gone	The result meets our expectation	Aug 1st	Ziyan Yang

Test case group: Edit Email

Test Cases	Input	Result	Comment	Date	Tester
Normal case	Click Edit and enter a correct email	The email entered is shown in Email Address blanket	The result meets our expectation	Aug 1st	Dekai Meng
Non-exist email	Click Edit and enter a email that doesn't exist	The email entered is shown in Email Address blanket	It is better to warn the user that he might enter a wrong email. But we	Aug 1st	Dekai Meng

			have no idea how to check if an email address exists.		

Test case group: Alarm preference

Test Cases	Input	Result	Comment	Date	Tester
Normal case	Click one of the three preferences: MUTE, VIBRATE, SOUND	The selected preference is highlighted in blue with an underline	The result meets our expectation	Aug 1st	Ziyan Yang

Test case group: Dark Mode

Test Cases	Input	Result	Comment	Date	Tester
Normal case	Switch to dark mode	No response	The background should turn black with texts turn white	Aug 1st	Ziyan Yang

Test case group: Language

Test Cases	Input	Result	Comment	Date	Tester
Normal case	Switch to a new language	No response	The texts should change to the selected language	Aug 1st	Dekai Meng

A project timeline

Documentation standards:
Please refer to Figure 15.1 and read page 506-507. Every code artifact should be preceded by a prologue listing details of the following code