

Test Plan

Abstract

The test plan is a document that describes the scope, strategy and method, resources and progress of the test. It is macro planning for the whole testing activity, which determines the testing task, the testing method, the tested characteristics and the expected output in the process. The test plan can effectively prevent the risks of the plan and ensure the smooth implementation of the test activities within the plan's scope.

Component Testing

1. AlgorithmButton

Test Name	Description	Operation	Expected Outcome
should contain title and code	title and code should be shown on the button	null	title and code are found on the button
should call onClick	Click the AlogrithmButton will call the onClick function	Click AlogrithmButton	onClick will be called once
should match Snapshot	Compare new snapshot with old one	null	Snapshots are the same

2. AnimationControl

Test Name	Description	Operation	Expected Outcome
should contain 5 buttons	AnimationControl component should have 5 buttons: reset, go backward, play/pause, go forward and the speed choosing menu.	Find buttons	5 buttons found
should call functions	When click buttons, corresponding functions should be called.	Mock click event.	every onClick function will be called once.
should match AnimationControl snapshot	Compare new snapshot with old one.	take snapshot and compare	Snapshots are the same.

3. AnimationSlider

Test Name	Description	Operation	Expected Outcome
should match Snapshot	Compare new snapshot with old one.	take snapshot and compare	Snapshots are the same.

4. AnimationWithCode

Test Name	Description	Operation	Expected Outcome
should call AnimationSlider	The component contains a sub component AnimationSlider.	None	Component AnimationSlider is called once.
should call AnimationControl	The component contains a sub component AnimationControl.	None	Component AnimationControl is called once.
should match Snapshot	Compare new snapshot with old one.	None	Snapshots are the same.

5. CorrectnessHelp

Test Name	Description	Operation	Expected Outcome
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Test Name	Description	Operation	Expected Outcome
should contain button	test whether titles and buttons are rendered properly	Mock click event	Contain 1 button
should match CorrectnessHelp Snapshot	Compare new snapshot with old one.	null	Snapshots are the same.

6. ExplanationBox

Test Name	Description	Operation	Expected Outcome
should match Snapshot	Compare new snapshot with old one.	None	Snapshots are the same.

7. FirstInBackdrop

Test Name	Description	Operation	Expected Outcome
should match FirstInBackdrop Snapshot	Compare new snapshot with old one.	null	Snapshots are the same.

8. InputBar

Test Name	Description	Operation	Expected Outcome
should contain buttons	The component contains two buttons.	None	Contain two buttons
should call functions	When click buttons, corresponding functions should be called	mock click	functions are called once
should match Snapshot	Compare new snapshot with old one.	None	Snapshots are the same.

9. InputTable

Test Name	Description	Operation	Expected Outcome
should contain title & button	test whether titles and buttons are rendered properly	Mock click event	Contain Legal Input, Illegal Input, Input and Result; Contain 4 buttons
should match InputTable Snapshot	Compare new snapshot with old one.	null	Snapshots are the same.

10. Module

Test Name	Description	Operation	Expected Outcome
should call two modules	two sub components shall be called properly	mock two modules and render this module	the two modules are called

11. ModuleButton

Test Name	Description	Operation	Expected Outcome
should contain bubblesort	This component should be able to display title properly	try find the demo text	demo text found
should call onclick	should be able to response to click event and call the onclick function	Mock click event.	onClick function will be called once.

Test Name	Description	Operation	Expected Outcome
should match snapshot	Compare new snapshot with old one.	take snapshot and compare	Snapshots are the same.

12. ModuleProgress

Test Name	Description	Operation	Expected Outcome
should match Snapshot	Compare new snapshot with old one.	null	Snapshots are the same.

13. Implementationon

Test Name	Description	Operation	Expected Outcome
should call InputBar	An InputBar shall be called	mock an InputBar and render it	An InputBar is called
should call AnimationSlider	An AnimationSlider shall be called	mock an AnimationSlider and render it	An AnimationSlider is called
should call AnimationControl	An AnimationControl shall be called	mock an AnimationControl and render it	An AnimationControl is called
should call ExplanationBox	An ExplanationBox shall be called	mock an ExplanationBox and render it	An ExplanationBox is called
should match Snapshot	Compare new snapshot with old one.	null	Snapshots are the same.

14. ProcedureOperation

Test Name	Description	Operation	Expected Outcome
should call InputBar	An InputBar shall be called	mock an InputBar and render it	An InputBar is called
should call SwitchAnimation	A SwitchAnimation shall be called	mock a SwitchAnimation and render it	A SwitchAnimation is called
should match Snapshot	Compare new snapshot with old one.	null	Snapshots are the same.

15. SpeedMenu

Test Name	Description	Operation	Expected Outcome
should have buttons	SpeedMenu component should have a button and speed options (menuitems).	Find buttons	Buttons should be found
should call handleClick and close	The button click event should call handleClick and close function	Click SpeedMenu Click a speed option	handleClick and handleClose will be called once.
should match SpeedMenu snapshot	Compare new snapshot with old one.	take snapshot and compare	Snapshots are the same.

16. SwitchAnimation

Test Name	Description	Operation	Expected Outcome
should call AnimationSlider	Test whether AnimationSlider is successfully called	Mock AnimationSlider and call it	call time is 1

Test Name	Description	Operation	Expected Outcome
should call AnimationControl	Test whether AnimationControl is successfully called	Mock AnimationControl and call it	call time is 1
should match Snapshot	Compare new snapshot with old one.	Take a snapshot and compare	Snapshots are the same.

17. TickCross

Test Name	Description	Operation	Expected Outcome
should match TickCross snapshot	Compare new snapshot with old one.	Take a snapshot and compare	Snapshots are the same.

18. TipFrame

Test Name	Description	Operation	Expected Outcome
should contain message	Message should be shown	null	The message is shown
should contain button	Confirm button should be included	null	The button is shown
should match Snapshot	Compare new snapshot with old one	null	Snapshots are the same