

Screen 1 - Home

Home screen with app title and 2 buttons - “about” button & “test” button

Display following text (large): Cognitive

Below this, display mission statement: Your health. In your hands.

Screen 2 - About

Display following text:

The Fight Against Neurodegenerative Disease

One in ten people over the age of 65 have Alzheimer’s Disease and other forms of dementia. That comes out to 44 million people in the world who are afflicted. By 2050, healthcare costs for dementia in the US alone could rise to \$1.1 trillion, over 325% more than what they are now. In a future where the average lifespan increases, risks for neurodegenerative disease will only go up. But there are ways we can help.

Early detection of Alzheimer’s, Parkinson’s, Huntington’s, and other neurodegenerative diseases may greatly assist in patient care. At Cognitive, we aim to use the results of our Neurocognitive Screening test to better evaluate cognitive function through simple tasks representative of cognitive health.

Display following text:

Disclaimer

The Cognitive Neurocognitive Screening Diagnosis Tool is a patient supplement that allows patients to evaluate their cognitive abilities through simple tasks. While the test provides a metric to evaluate cognitive function, it cannot determine whether a patient has a disease like Alzheimer’s, for example. The test is not liable for any false negatives/positives that are presented through results.

Screen 3

Test

Scoring to be done after every question and should be displayed at the end

Answers to be entered by users

Maximum Score	Skill	Challenge	Question/Task	Expected Answer	API/Component
Date: 1 Year: 1 2	Comprehension	Date identification	The date is May 5th, 2019. What is the month?	May.	-Picker/Buttons
Correct Answer: 1 1	Comprehension	Directional counting (forwards/back wards)	Count forwards from 2 to 6.	2-3-4-5-6.	-SpeechRecognition -TextInput
Correct Answer: 1 1	Comprehension	Directional spelling (forwards/back wards)	Type "CANDY" backwards.	Y-D-N-A-C.	-TextInput
Each animal: 1 2	Perception (visual perception)	Image identification	Identify the animals on the screen.	Dependent upon animals displayed. (For example: a dog and a cat.)	-Picker/ Buttons -TextInput -ImagePicker
Correct word: 1 1	Comprehension	Word formation	Use the letters on the screen to form a word.	Patient forms the word (a simple word, the only word possible out	-GestureHandler -TextInput

				of the 4-5 letters displayed.)	
3 (all-or-nothing)	Problem-solving	Maze completion	Complete the maze.	Patient draws a continuous line from beginning to end.	-GestureHandler -GL -ImageManipulator?
Each button: 1 Reaction time under 6 seconds: 1 3	Motor	Button-pressing	Press the button in the top-left corner and bottom-right corner.	Patient presses specified button.	-Buttons
Image orientation: 1 Correct orientation: 1 2	Perception (visual perception)	Image orientation	Rotate the letter so that it is placed correctly.	Patient orients letter correctly.	-GestureHandlerPinch -ImageManipulator
Each card: 1 3	Motor	Card-pressing/i dentification	A set of cards will be shown to you. Press the cards that have the number "4" on it.	Patient presses the 3 cards with the specified number.	-ImagePicker -MediaLibrary
Correct answer: 1 1	Perception (visual perception)	Depth perception	How many legs does this elephant have?	The elephant has 3 legs.	-ImagePreview -TextInput
Correct answer: 1 1	Perception (auditory perception)	Frequency distinction	Two sounds will be played. Which one is higher and which one is lower?	Dependent upon sounds presented. (For example: Sound	-React-Native-Sound -Picker/ Buttons

				A is higher and Sound B is lower.)	
Correct answer: 1 1	Memory	Information recall	A set of cards will be shown to you and then taken away. (After cards were taken away) What was the first card?	Dependent upon cards presented. (For example: Card 1 was the first card.)	-ImagePicker -MediaLibrary -Modal -Picker/ Buttons
Partial answer: 1 Complete answer: 1 2	Memory	Information recall	Repeat the given statement: "I ran to the park and back."	Patient repeats statement correctly.	-SpeechRecognition -TextInput
Correct answer: 2 2	Memory	Image recall	An image will be shown to you and then will disappear. (After the image disappears) How many bottles were in the image?	Patient answers correctly.	-TextInput
Correct answer: 1 1	Problem-solving	Analogy	Dog is to cat as apple is to _____. (Answers include: ball, fish, orange.)	Patient answers with orange as the correct answer.	-Picker
Correct answer: 1 1	Problem-solving	Sequence	Identify the next number in the sequence. 1, 3, 5, 7, 9,	Patient identifies 11 as the next number.	-Picker/ TextInput

			_____.		
Correct answer: 1 1	Problem-solving	Numerical challenge	I am 2nd in line from the front and the back. How many people are in line?	Patient identifies 3 as the correct answer.	-Picker/ TextInput

Scoring

Section-based score

Perception	Comprehension	Motor Skills	Memory	Problem-Solving
5-6 Displays little to no signs of perception deficits.	4-5 Displays little to no signs of comprehension deficits.	5-6 Displays little to no signs of motor deficits.	4-5 Displays little to no signs of memory deficits.	5-6 Displays little to no signs of problem-solving deficits.
2-4 Displays mild/moderate perception deficits.	2-3 Displays mild/moderate comprehension deficits.	2-4 Displays mild/moderate motor deficits.	2-4 Displays mild/moderate memory deficits.	2-4 Displays mild/moderate problem-solving deficits.
0-1 Displays significant perception deficits.	0-1 Displays significant comprehension deficits.	0-1 Displays significant motor deficits.	0-1 Displays significant memory deficits.	0-1 Displays significant problem-solving deficits.

Total score

Score	Results
24-28	Displays little to no cognitive deficits.
18-23	Displays mild cognitive deficits.
11-18	Displays moderate cognitive deficits.
0-10	Displays severe cognitive deficits.