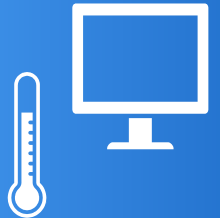




COVID-19 Physical and Mental Health Checkup

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Purpose

- ▶ The purpose of the COVID-19 Physical and Mental Health Checkup program is to provide a way for people to learn about their physical and mental health status, along with appropriate resources.
- ▶ With this checkup, people will be provided information regarding their risk of COVID-19 infection, BMI, and mental health. The resources and recommendations are based on people's responses and are catered to their unique experiences.

COVID-19 Physical and Mental Health Checkup Demonstration

Known limitations or bugs:

- FileNotFoundException (correct file location must be present for text file feature to work)
- IllegalArgumentException (scores must lie within range)
- User input must match requested fields (ex. If real number is requested, a character cannot be entered)

Key Parts of the Software

- ▶ `physicalHealthCheck`
 - ▷ `covidTest` - tests the amount of COVID-19 related symptoms present in the user, provides a report of the user's risk and symptoms, and lists resources based on whether the user has a high, medium, or low risk of infection.
 - ▷ `bodyMassIndexTest` - calculates the user's BMI, places the user in a category based on BM recommendations by WHO, and explains risks associated with extremely low or high BMI.
- ▶ `mentalHealthCheck` - determines the user's mental health through a series of statements and provides resources based on high or low health.
- ▶ `heartGraphic` - uses asterisks and for loops to construct an ending graphic of a heart and thank you to conclude the checkup.

Testing and Software Engineering Metrics

- ▶ We tested each of our individual methods as wrote them. After compiling all of our code together, we spent two days testing our program.
- ▶ In order to test the program, we individually took the checkup multiple times, ran and went through the code together over Zoom, and had our family members take our Health Checkup and give us advice on what we can improve on.
- ▶ Software Engineering Metrics
 - ▷ One class, six methods, five text files
 - ▷ File size is 26 KB

What We Learned

- ▶ Gained more experience with materials and functions studied in class, especially file processing, conditional execution, and interactive programming
- ▶ Increased skills with coding equations and formulas, loops, if/else-if statements, and throwing exceptions
- ▶ Learned how to collaborate a Java program by compiling code from multiple individuals and using various methods
- ▶ Attained an appreciation for Java, an Object-Oriented programming language, by applying programming skills to a real-world scenario of the need for electronic healthcare checkups during the COVID-19 pandemic

