System and Unit Test Report

Social Distance Detector

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Sprint 1

User Story 1: As a user, I want to be able to open this app on my webcam feed or video.

User Story 2: As a user, I want to be able to detect humans from a webcam feed or video.
User Story 3: As a user, I want to know how many people are in the video.

User Story 4: As a user, I want an interface/GUI to choose a video file, or video stream (like webcam).

Scenario:

1. Start Social distance detector app with two people in front of the camera
2. Choose video stream(webcam) option on GUI
3. Press Start Button on GUI
4. User should see both people on webcam
5. It recognizes two people shows people recognized = 2 at bottom left of the screen

Sprint 2

User Story 1: As a user, I want to know how far away people are from the camera.

User Story 2: As a user, I want to be able to enter my camera specifications

Scenario:

1. Start a Social distance detector app with 1 person standing in front of the camera 10 feet away.
2. Choose video stream(webcam) on GUI
3. User enters a invalid input for the camera specifications
    - height = <5>
    - angle = <90>
    - Field of view vertical= <-45>
    - Field of view Horizontal <100>
    - press Start button
4. Error message pops up and gives valid ranges for all inputs
5. User enters a valid input for the camera specifications that are actually their camera specifications
    - height = <5>
    - angle = <90>
    - Field of view vertical= <100>
    - Field of view Horizontal <100>
    - press Start button
6. Webcam opens and shows the two people
7. Boxes appear around the person and shows he is 10 feet away

Sprint 3

User Story 1: As a user, I want the program to run reasonably fast.

User Story 2: As a user, I want a nice interface.

User Story 3: As a user, I want to be able to see the distance between people.

User Story 4: As a user, I want to be able to save videos for each violation of social distancing.

Scenario:

1. Start Social distance detector app with two people in front of camera 7 feet away from each other
2. The users are amazed with how good the GUI looks
3. The users enter valid camera specifications for their camera and choose the webcam option
    - height = <5>
    - angle = <90>
    - Field of view vertical= <100>
    - Field of view Horizontal <100>
    - press Start button
4. The webcam opens up and the users see how fast the program is running
5. The two users walk to they reach 4 feet away from each other
6. A line by their feet is drawn and has a 4.00 on top of that line.
7. A video begins and stops when they stop violating the social distance rule.
8. This video is defaulted saved in the same directory as the program files

Sprint 4

User Story 1: As a customer, I want a codebase that is clean so I can cost-effectively hire developers to extend the functionality.

User Story 2: As a user, I want a refined user experience.

User Story 3: As a user, I want to be able to access files.

User Story 4: As a user, I want to be able run a video file just like a webcam

Scenario:

1. Start Social distance detector app with a premade video of two people in front of the camera.
2. The users enter valid camera specifications for their camera and choose the webcam option
    - height = <5>
    - angle = <90>
    - Field of view vertical= <100>
    - Field of view Horizontal <100>
3. The users press the Choose Path button and a pop up window of all their files show up
    - User navigates to folder they want to save violation videos in
    - Press open
    - There path is now shown on the line next to the button
4. The users press the Choose Video button and a pop up window of all their files show up
    - User navigates to folder where their video is saved
    - The user clicks on the video file they made
    - Press open
    - There path is now shown on the line next to the button
5. The premade video opens and looks the users watch the program figure out if their were any violations in the video which there isn't any
6. The users agree it was a refined experience and now want to look at the code
    - The users see a clean codebase and if wanted to can easily add functionality