Capstone Project Weekly Progress Report

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| Project Title | Air Canvas |
| Group Name | Python Thinkers |
| Student names/Student IDs | Anto Francis (C0825095)  Omer Volkan(C0856373)  Rupesh Chandran(C0826779)  Sachin Sreekumar (C0825096) |
| Reporting Week | Feb 19, 2022 to Feb 26, 2022 |
| Faculty Supervisor | Prof. Parissa Naraei |

# **Tasks Outlined in Previous Weekly Progress Report** using one of the scrum tools listed above(Provide detailed information on the tasks to be completed in this week)

* How to implement trackbar and identify the challenges in the implementation.
* Dividing the trackbar setup into sub modules and assign to individuals with deadlines

# **Progress Made in Reporting Week** (Provide detailed information on the progress that you made in the reporting week. Limit your write-up to no more than two page)

* Converted the frame into HSV color plane for better color identification and tracking
* Track bar is setup using setTrackbarPos. Different colors is set using the switch in which we can set the marker color using switch in which 1 will activate the specific color as the marker color.
* TortoiseGit is setup for easy handling of code done by different individual. Being an agile setup, many individuals are working on different at the same time. TortoiseGit provides a windows shell Interface of Git for ease of use.
* The second phase of the development phase is in progress. All the individuals in the group are working in parallel in different modules.

# What did you learn about your project this week? ( Provide examples of which errors you faced and how you solved it, tasks you did not consider in scope but you ended up adding as a dependency for other components of your project, etc. )

* Working on RGB color pane is very difficult for color detection and tracking. In RGB, only a particular color is detected based on red, green, blue values. Converting the frame into HSV pane improves the color detection by allowing variation in red, blue, green colors.
* Working in an agile setup leads to lot of problems in code merging. Used TortoiseGit which merges code with ease and visual representation where there is a change in the code.

# What values did you add to your project / team during the past week? ( Provide examples of how you enhanced team collaborations, conflict resolving, task distributions amongst the team members, problems you solved, visions you shared with your mates, etc. )

* Conflict in merging the code of individual was solved by using a proper windows shell interface, TortoiseGit. This enhanced the team collaboration and allowed us to work in parallel more effectively.
* Team discussions in the biweekly call really helped us to sub divide the tasks at hand into smaller portions and assigned the task to individuals simultaneously.

# How will you take your project into its next level and what do you need to do so? ( provide examples of how you will enhance the quality of work and what resources you expect requiring to help you do so ).

* Achieve more accurate tracing of the marker object using different morphological operations. Optimize the code as much as possible to get accurate results.
* Find algorithms to optimize the working of the application. And find different areas of applications which makes use of this principle to level up the project’s capabilities.