**Report based on the Video file ‘*finalVideo2.mp4*’-**

Idea of the video-

* Here is the link of the video only visible to the grader-

https://connectpolyu-my.sharepoint.com/:v:/g/personal/18080395d\_connect\_polyu\_hk/EfSW6LbfYk1Pt6fmvDjjKX4BL8h8HTEbjo-7Fhs\_UXiDCw?email=qee-mai.li%40connect.polyu.hk&e=kJqOky

* There are two trailers of the web series ‘Special Ops’, used to recreate a new trailer with features and effects from MoviePy library, to do video editing.
* The video has no sound, but subtitles from the original trailers have been retained wherever required.
* Total duration of the video is 18 seconds.
* It is better to watch the video full screen to notice the effects and actions well.
* The vfx effects used are- fading in, fading out, inversion of colors and freezing.

Explanation for methods of combination and vfx effects used-

1. Introduction of attacks in different places and years of occurrence, the mastermind and mission-

* The background video clip shows the video clip showing the words “19 year manhunt”, which is the mission. The vfx effect used to end this part is fade out for one second.

Code line for vfx-

Hunt=vfx.fadeout(Hunt, 1) ## vfx effect- video fades out in the last one second

* The clip showing the man who is mastermind of these attacks, is shown in the middle of the video. The vfx used in the clip is mirror effect, in which the original clip is shown to play backwards. The clip starts after one second.

Code line for vfx and start after one second-

Mastermind=vfx.time\_mirror(Mastermind) ## using vfx effect- time mirror

Mastermind=Mastermind.set\_start(1) ## video starts after 1 second

* The clips showing attacks in different places shows in four corners of the video, along with the clip showing mastermind in the middle, using the method of composite video clips.

Delhi=Delhi.set\_position(("left", "top")) ##position of clip- top left corner

Mumbai1=Mumbai1.set\_position(("right", "top")) ##position of clip- top right corner

Mumbai2=Mumbai2.set\_position(("right", "bottom")) ##position of clip- bottom right corner

Kashmir=Kashmir.set\_position(("left", "bottom")) ##position of clip- bottom left corner

Mastermind=Mastermind.set\_position("center") ##position of clip- center

##composite video saved to final1

final1=CompositeVideoClip([Hunt, Delhi, Mumbai1, Mumbai2, Kashmir, Mastermind])

1. Introduction of Himmat, the man leading the operation-
   * The timestamps are selected from the first trailer and then sub clipped. These sub clips are then concatenated.

Code of concatenation-

##concatenated video is resized, with reduction in height, saved again in final2

final2 = final2.crop(width=himw, height=himh-80, x\_center=himw/2, y\_center=himh/2)

1. Introduction of 5 agents in the mission, and the number countries-
   * Stacking of videos is used in 3\*3 style.
   * The clip showing number of countries and agents freezes when the number of agents is shown. The vfx effect used is freeze.

Code for vfx and stacking-

##clip freezed at its first second for 2 seconds, while showing number of agents

freeze = vfx.freeze(NumberAgents, 1.0, 2.0)

##composite video saved to final3

final3= clips\_array([[Farooq, freeze, Ruhani],[Juhi, Avinash, Bala],])

1. Introduction of Hafiz, a suspected man
   * The subclips from first and second trailers are used to concatenate and form a video clip for introducing Hafiz. The first part of subclip uses the video effect to invert colors. The subclip is frozen for initial one second. Vfx effect used here again is freeze.

Code used for vfx and concatenate-

Hafiz1=vfx.invert\_colors(Hafiz1) ##vfx effect- inversion of colors, to give a suspicious look

##clips Hafiz1, Hafiz2, Hafiz3 concatenated and saved to Hafiz, to introduce Hafiz

Hafiz=concatenate\_videoclips([Hafiz1,Hafiz2, Hafiz3], method="compose")

Hafiz=vfx.freeze(Hafiz, 0, 2) ##vfx effect- freeze at 0th second for 2 seconds

* + The subclip Team is to show the team in action, taken from second trailer.

Code for setting position of this video-

Lead=Lead.set\_position(("right", "bottom")) ##clip is placed on bottom right corner

* + The subclip Lead is to show the leader of team in action.

Code for setting position of this video-

Team=Team.set\_position(("left", "bottom")) ##clip is placed on bottom left corner of the video

* + Subclips Hafiz, Team and lead are shown in composition, with clip Hafiz being used as background and the other two clips placed in the bottom two corners of the video.

Code for composite videos-

##composition of video clips Hafiz, Team and Lead,

##with the clip named Hafiz being used as background

final4=CompositeVideoClip([Hafiz, Team, Lead])

1. Ending of the video
   * The ending part of the video shows the name of the web series and other details. It starts with vfx effect fade in for two seconds.
   * The ending part is just a simple sublcip from the first trailer.

Code for vfx-

Ending=vfx.fadein(Ending,2) ##vfx effects- clip fades in its last two seconds

1. Final video concatenated and written to video file ‘finalVideo2.mp4’
   * The clips at each stage as a result of smaller clips combined using combination methods and vfx effects, is finally combined by concatenated. Keeping in mind the effect of stacked video, how large it can be, we reduced its size.

Code for concatenation-

final3.resize(0.2) ## resizing the stack video, as it is larger, to achieve successful concatenation

##clips final1, final2, final3, final4, final5 being concatenated in this order,

##and saved in this order

final = concatenate\_videoclips([final1, final2, final3, final4, final5], method="compose")