German university in Cairo
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Department of Media Engineering and Technology

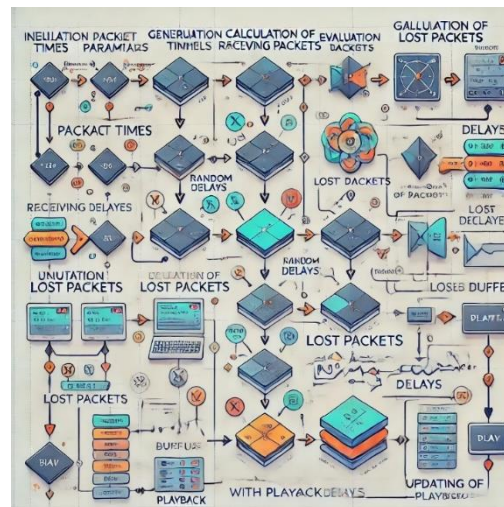# STREAMING LIVE MEDIA

Presented by:

- ❖ Nourhan Hossam (55-17842)
- ❖ Haidy Ehab   (55-0782)
- ❖ Amr Khaled   (55-3239)

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Our simulation is used to model the process of audio packets being transmitted. It is generating three curves

i- A curve for packet generation given a start time and the number of packets to be transmitted.

ii-A packet receiving curve by using a randomly generated set of network delays to each packet from the generation curve.

iii- A playback curve by adding a playback delay to the received packets.

Simply the code work as the folowing chart

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[Start]

 |

[Initialize Variables]

 |

[Generate Packet Generation Times] -- Loop i

 |

[Calculate Receiving Times] -- Loop i

 |

[Calculate Playback Times and Lost Packets] -- Loop i

 |

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[Determine Maximum Time]

   |

[Set Canvas Dimensions]

   |

[Initialize Maximum Buffer Count]

   |

[Simulate Time Steps] -- Loop i

   |

   |---[Buffer Packets] -- Loop j

   | |

   | |---[Check Buffer Conditions]

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```
|   |

|---[Playback Packets] -- Loop j

|   |

|   |---[Check Playback Conditions]

|

[Log Current Time and Buffer State]

|

[End]
```
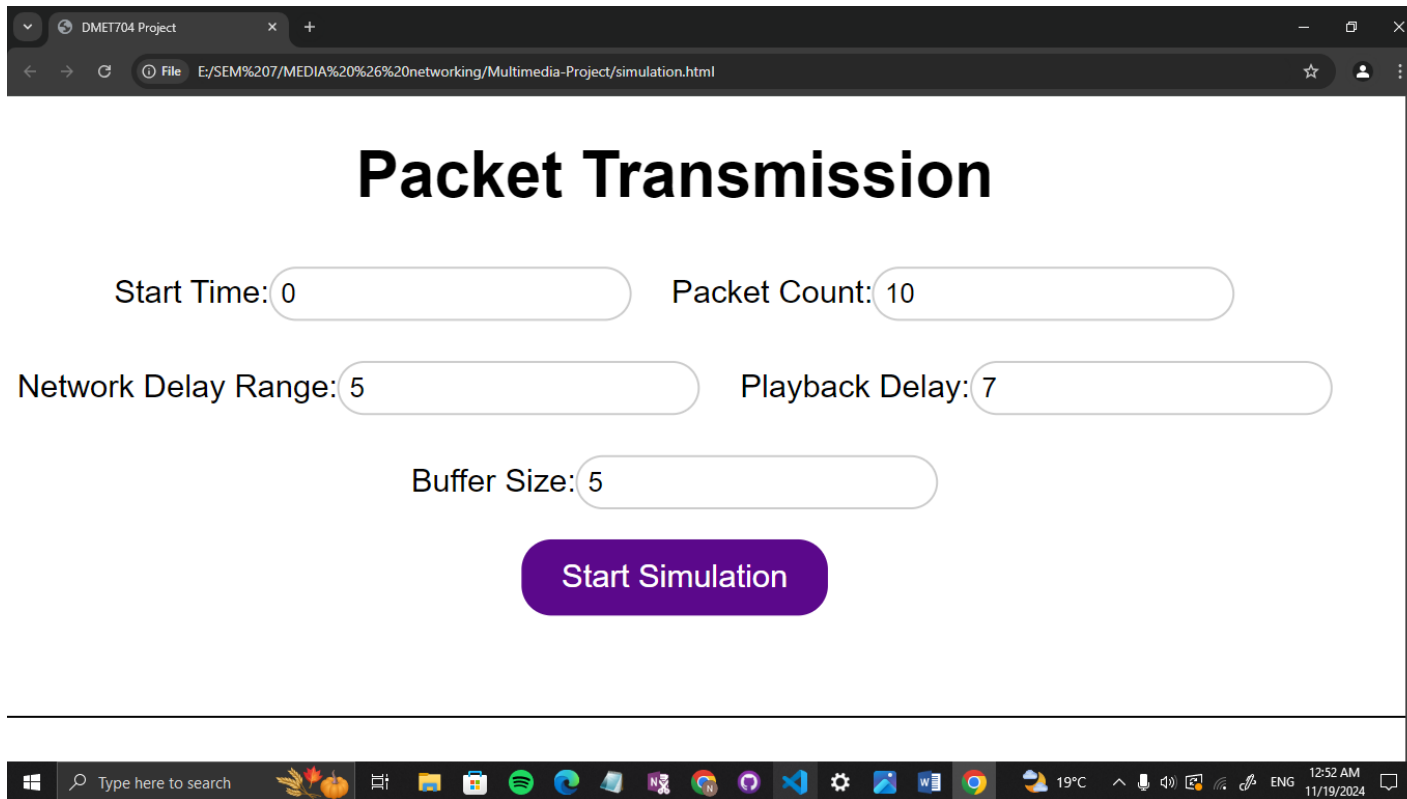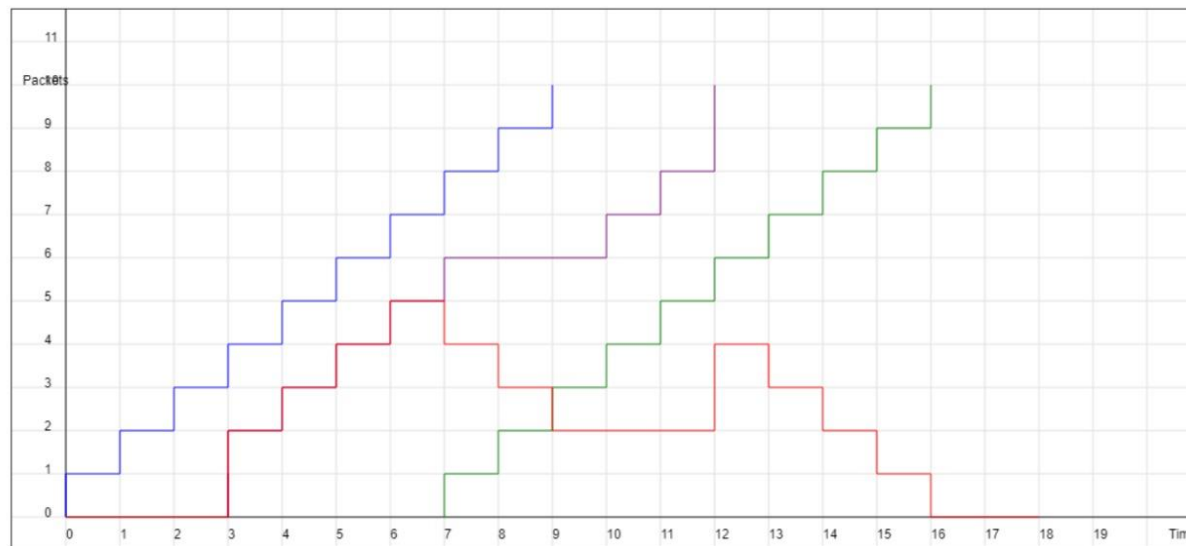
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The front end provides HTML page which takes all detais from the user

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Here is a sample of the output using the previous inputs

Simulation Results

Average Buffer Size: 2.642857142857143

Minimum Buffer Size: 5

Lost Packets: 5

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Another values taken from the user

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Here is a sample of the output using the previous inputs
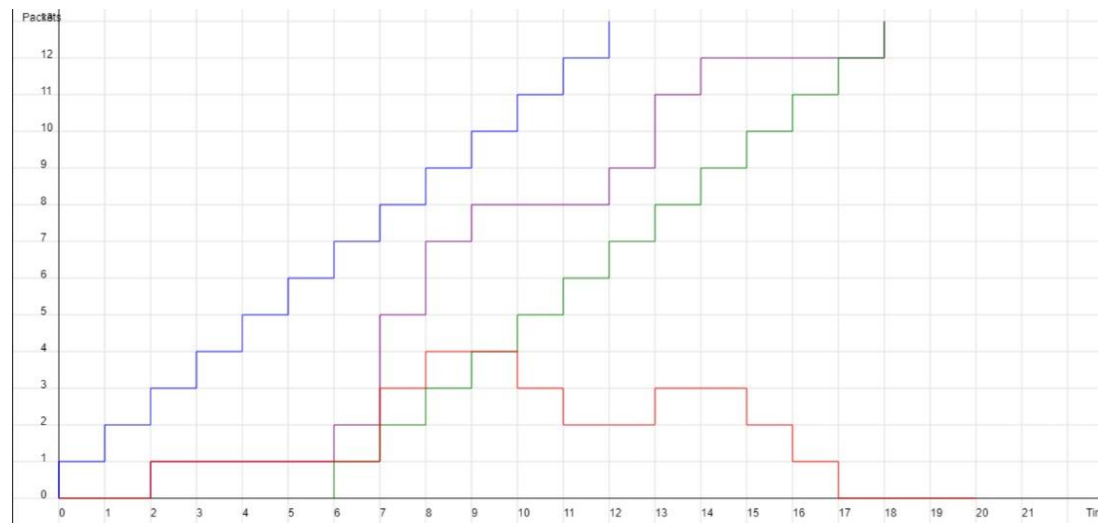
Simulation Results

Average Buffer Size: 1.8823529411764706

Minimum Buffer Size: 5

Lost Packets: