

IFT 365 – Applied Programming Language for Information Technology

Coding Project – Project Update 2

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Instructions: You should have at least **six features or functions of your applications completed** by the time you submit this assignment. Use the questions below to have a written discussion about the current progress of your coding project. After you answer the questions below, insert a screenshot of the features or functions you have completed so far.

1. How do you feel your coding project is coming along?

It is coming along much better this week. I am just about completed with the project, I have 2 more features to integrate and it is completed. I've added some helper functions and more directories to organize the code better.

2. Since your last update, what issues have you encountered? Have you already resolved them? How? If not, how do you plan to resolve them?

I don't have any new issues, still working through appending new data entries to the csv file, and generating an automated report.

3. Your coding project is almost done. Outline what you have left and how you plan on completing it.

I have 2 more features to complete.

1. Automated reports
 - a. Storing locally (PDF w/ network stats)
2. Appending csv file to only hold 2 hrs worth of networks stats.

I plan to complete these by the end of the thanksgiving break.

4. With your application almost done, has your flow chart changed? If so, revise your previous flow chart and insert it below.

It has not changed since the last update.

-----completed-----

1. Run ookla for network stats
2. Store data in csv file
3. Generate visual representation of stats

-----in progress-----

4. Append csv file for most recent 2 hours of stats
5. Generate Report every 2 hours for network stats

5. Insert the screenshot(s) of feature or function #1 here.

Program running -

```
1 package main
2
3 import (
4     "log"
5     "os"
6     "os/signal"
7     "syscall"
8     "time"
9
10    "network-monitoring-tool/graphs" // updated package import
11)
```

2024/11/17 13:59:51 Row 157: [2024-11-10 20:22:58 0.00 0.00 0.00 0.00 0.00]

2024/11/17 13:59:51 Row 158: [2024-11-10 20:24:03 0.00 0.00 0.00 0.00 0.00]

2024/11/17 13:59:51 Row 159: [2024-11-10 20:36:02 103.43 23.21 15.55 5.56 0.00]

2024/11/17 13:59:51 Row 160: [2024-11-10 20:37:08 101.39 20.46 16.79 1.29 0.00]

2024/11/17 13:59:51 Row 161: [2024-11-10 20:38:02 65.81 22.77 14.57 1.93 0.00]

2024/11/17 13:59:51 Row 162: [2024-11-10 20:39:10 108.00 23.51 16.62 1.61 0.00]

2024/11/17 13:59:51 Row 163: [2024-11-10 20:40:02 103.06 23.23 18.07 5.37 0.00]

2024/11/17 13:59:51 Row 164: [2024-11-10 20:40:59 29.55 22.97 15.72 3.26 0.00]

2024/11/17 13:59:51 Row 165: [2024-11-10 20:41:50 24.32 22.85 31.58 26.14 0.00]

2024/11/17 13:59:51 Row 166: [2024-11-10 20:42:56 61.60 22.18 17.31 1.43 0.00]

2024/11/17 13:59:51 Row 167: [2024-11-10 20:43:51 46.87 23.24 13.97 1.88 0.00]

2024/11/17 13:59:51 Row 168: [2024-11-10 20:44:57 39.04 23.26 15.82 3.45 0.00]

2024/11/17 13:59:51 Row 169: [2024-11-10 20:45:46 47.42 22.28 15.41 2.06 0.00]

2024/11/17 13:59:51 Row 170: [2024-11-10 20:47:07 56.82 20.57 17.07 8.55 0.00]

2024/11/17 13:59:51 Row 171: [2024-11-10 20:48:07 55.41 22.13 17.62 1.31 0.00]

2024/11/17 13:59:51 Row 172: [2024-11-10 20:48:40 40.58 22.72 14.96 5.83 0.00]

2024/11/17 13:59:51 Row 173: [2024-11-10 20:50:00 42.54 23.40 17.05 4.77 0.00]

2024/11/17 13:59:51 Row 174: [2024-11-10 20:50:52 27.73 22.75 14.07 2.71 0.00]

2024/11/17 13:59:51 Row 175: [2024-11-10 21:10:04 81.89 18.29 17.28 1.84 0.00]

2024/11/17 13:59:51 Row 176: [2024-11-10 21:11:06 80.80 21.94 16.24 1.32 0.00]

2024/11/17 13:59:51 Row 177: [2024-11-10 21:11:59 87.21 22.98 15.84 4.10 0.00]

2024/11/17 13:59:51 Row 178: [2024-11-10 21:12:58 91.83 23.37 18.54 3.15 0.00]

2024/11/17 13:59:51 Row 179: [2024-11-10 21:14:03 79.32 22.97 22.12 11.40 0.00]

2024/11/17 13:59:51 Row 180: [2024-11-10 21:14:59 75.03 20.80 14.44 1.30 0.53]

2024/11/17 13:59:51 Row 181: [2024-11-10 21:17:03 91.66 22.67 17.70 9.49 0.00]

2024/11/17 13:59:51 Row 182: [2024-11-10 21:18:03 73.30 22.69 19.27 7.75 0.00]

2024/11/17 13:59:51 Row 183: [2024-11-17 13:59:51 102.22 23.14 16.95 11.27 0.00]

2024/11/17 13:59:51 Speed test completed: Download: 102.22 Mbps, Upload: 23.14 Mbps, Ping: 16.95 ms, Jitter: 11.27 ms, Packet Loss: 0.00%

2024/11/17 13:59:51 Detailed Output: (102.22312 23.143696 16.946 11.273 0)

2024/11/17 13:59:51 Combined chart generated and saved to network_metrics_chart.html

6. Insert the screenshot(s) of feature or function #2 here.

CSV file –

network_metrics																
Timestamp	Download Speed (Mbps)	Upload Speed (Mbps)	Ping (ms)	Jitter (ms)	Packet Loss (%)											
11/10/2024 17:15	96.68	22.19	16.25	1.76	0											
11/10/2024 17:16	0	0	0	0	0											
11/10/2024 17:17	95.45	22.07	16.81	2.17	0											
11/10/2024 17:18	87.4	23.12	21.89	10.02	0											
11/10/2024 17:19	71.39	21.63	19.27	11.96	0											
11/10/2024 17:20	74.52	22.12	16.49	2.98	0											
11/10/2024 17:21	84.92	21.97	27.09	33.87	0											
11/10/2024 17:22	94.91	20.61	22.1	7.39	0											
11/10/2024 17:23	93.46	22.13	19.02	3.63	0											
11/10/2024 17:24	89.49	23.31	16.18	2.97	0											
11/10/2024 17:25	93.6	22.9	16.59	2.22	0											
11/10/2024 17:26	89	23.1	15.98	2.38	0											
11/10/2024 17:27	95.09	22.69	17.39	4.42	0											
11/10/2024 17:28	81.81	22.13	17.7	1.52	0											
11/10/2024 17:29	84.67	22.49	16.3	1.41	0											
11/10/2024 17:30	99.81	23.06	17.5	71.83	0											
11/10/2024 17:31	73.34	23.34	15.71	2	0											
11/10/2024 17:32	103.83	19.11	18.55	8.86	0.42											
11/10/2024 17:33	99.27	18.28	15.98	2.64	0											
11/10/2024 17:34	91.36	22.7	15.19	2.08	0											
11/10/2024 17:35	81.91	23.17	15.05	0.67	0											
11/10/2024 17:36	81.4	22.1	24.6	6.14	0											
11/10/2024 17:37	80.49	20.7	103.22	27.91	0											
11/10/2024 17:38	87.87	22.66	17.32	10.81	0											
11/10/2024 17:39	91.34	21.65	35.69	13.57	0											
11/10/2024 17:40	0	0	0	0	0											
11/10/2024 18:00	0	0	0	0	0											
11/10/2024 18:01	0	0	0	0	0											
11/10/2024 18:02	0	0	0	0	0											
11/10/2024 18:03	0	0	0	0	0											
11/10/2024 18:04	0	0	0	0	0											

7. Insert the screenshot(s) of feature or function #3 here.

Data visualization

