The Chinese University of Hong Kong, Shenzhen

Course Code

Course Name

Your Title

Author: Your Name
Student ID: Your Student ID

November 23, 2023

Contents

1 Part 1

This is an example code listing:

```python
print("Hello World!")
```

Listing 1: Example Python code

1.1 Subsection 1

This is a subsection.

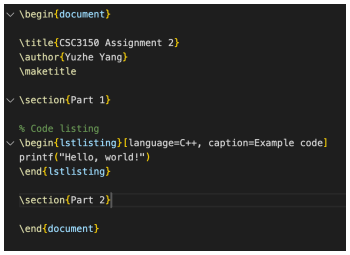
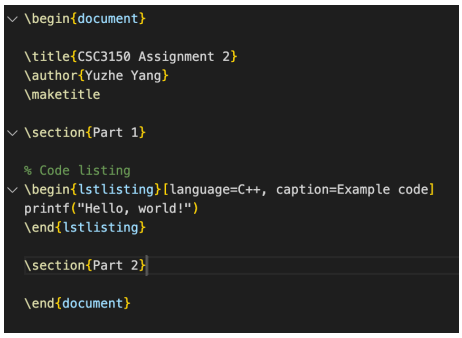
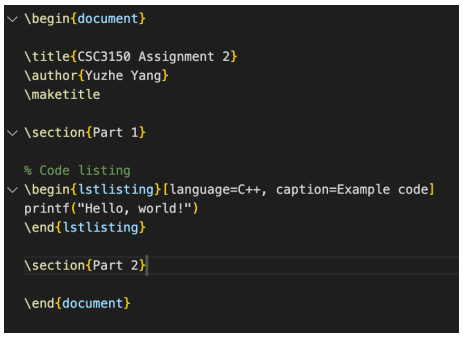


Figure 1: Example image

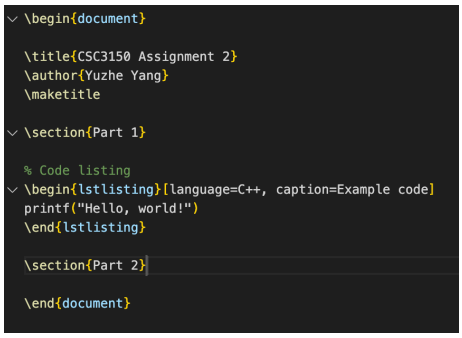
1.2 Subsection 2



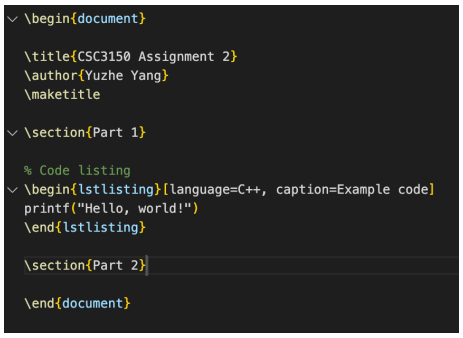
(a) Caption for Image 1



(b) Caption for Image 2



(c) Caption for Image 3



(d) Caption for Image 4

Figure 2: Example of the 2x2 Image Grid

2 Part 2

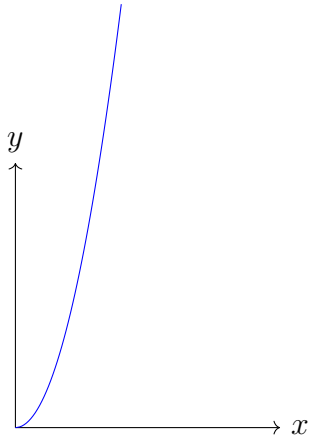
This is an example of an inline equation: $f(x) = x^2$.
This is an example of a displayed equation:

$$f_1(x) = x^2 \tag{1}$$
$$f_2(x, y) = f_1^2(x) + y^3 \tag{2}$$

The sum of A and B is:

$$A + B = \begin{bmatrix} 1+9 & 2+8 & 3+7 \\ 4+6 & 5+5 & 6+4 \\ 7+3 & 8+2 & 9+1 \end{bmatrix} = \begin{bmatrix} 10 & 10 & 10 \\ 10 & 10 & 10 \\ 10 & 10 & 10 \end{bmatrix}$$

This is an example graph:



$y = x^2$

3 Part 3

Column 1	Column 2	Column 3
Row 1, Column 1	Row 1, Column 2	Row 1, Column 3
Row 2, Column 1	Row 2, Column 2	Row 2, Column 3
Row 3, Column 1	Row 3, Column 2	Row 3, Column 3

Table 1: Example table

3.1 Program Framework

This is an example graph of program framework:

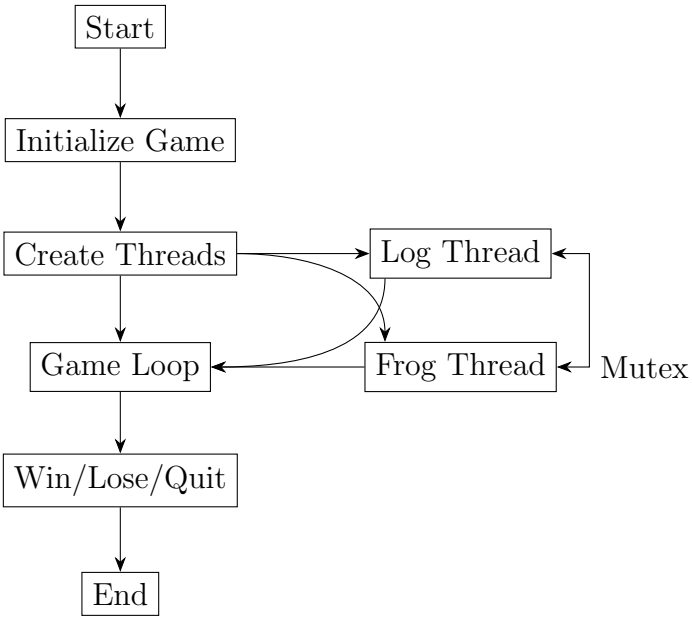


Figure 3: Program Framework

3.2 Part 4: Table

Table 2: USA

	Method	1.5 hour *MAE*	1.5 hour *RMSE*	1.5 hour *MAPE*	3 hour *MAE*	3 hour *RMSE*	3 hour *MAPE*	6 hour *MAE*	6 hour *RMSE*	6 hour *MAPE*
Arrival Delay	HA	9.09	11.85	1.15	9.09	11.85	1.15	9.09	11.85	1.15
	VAR	7.80	10.47	1.21	8.12	10.82	1.22	8.48	11.24	1.22
	ARIMA	10.51	13.89	2.44	10.48	13.86	2.42	10.60	14.02	2.48
	SVM	8.18	10.95	1.21	8.49	11.27	1.22	8.74	11.56	1.21
	STGCN									
	Gwave									
	GAT	7.595	10.222	1.181	7.856	10.492	1.148	8.337	10.995	1.075
	GRU	7.243	9.981	1.181	7.466	10.231	1.195	7.761	10.527	1.164
	ASTGCN	7.312	10.019	1.2	7.545	10.277	1.192	8.018	10.714	1.123
	STPN	6.875	9.411	0.996	7.171	9.762	1.005	7.552	10.189	1.065
	STCGAT	**6.615**	**9.221**	**1.099**	**6.947**	**9.642**	**1.130**	**7.278**	**10.008**	**1.127**
Departure Delay	HA	6.52	8.63	1.28	6.52	8.63	1.28	6.52	8.63	1.28
	VAR	5.56	7.66	1.13	5.82	7.93	1.14	6.17	8.30	1.13
	ARIMA	7.61	10.55	1.13	7.59	10.55	1.12	7.65	10.64	1.14
	SVM	5.96	8.13	1.09	6.24	8.41	1.08	6.43	8.65	1.04
	STGCN									
	Gwave									
	GAT	4.854	6.989	0.964	5.05	7.121	0.942	5.362	7.373	0.898
	GRU	4.569	6.897	0.966	4.694	7.019	0.982	4.933	7.201	0.976
	ASTGCN	4.548	6.942	0.98	4.693	7.045	0.961	5.115	7.274	0.965
	STPN	4.812	6.787	1.063	4.930	6.883	1.073	5.117	7.108	1.076
	STCGAT	**4.474**	**6.838**	**0.944**	**4.596**	**6.912**	**0.948**	**4.717**	**7.020**	**0.950**

Table 3: Results on the U.S. delay dataset

		1.5 hour		3 hour		6 hour	
	Method	*MAE*	*RMSE*	*MAE*	*RMSE*	*MAE*	*RMSE*
Arrival Delay	HA	9.09	11.85	9.09	11.85	9.09	11.85
	VAR	7.80	10.47	8.12	10.82	8.48	11.24
	ARIMA	10.51	13.89	10.48	13.86	10.60	14.02
	SVR	8.18	10.95	8.49	11.27	8.74	11.56
	STGCN						
	Gwave						
	GAT	7.595	10.222	7.856	10.492	8.337	10.995
	GRU	7.243	9.981	7.466	10.231	7.761	10.527
	ASTGCN	7.312					
	STPN	6.875					
	STCGAT	**6.615**					
Departure Delay	HA						
	VAR						
	ARIMA						
	SVR						
	STGCN						
	Gwave						
	GAT						
	GRU						
	ASTGCN						
	STPN						
	STCGAT						

Table 4: USA

		1.5 hour			3 hour			6 hour		
	Method	*MAE*	*RMSE*	*MAPE*	*MAE*	*RMSE*	*MAPE*	*MAE*	*RMSE*	*MAPE*
Arrival Delay	HA									
	VAR									
	ARIMA									
	SVM									
	STGCN									
	Gwave									
	GAT									
	GRU									
	ASTGCN									
	STPN									
	STCGAT									
Departure Delay	HA									
	VAR									
	ARIMA									
	SVM									
	STGCN									
	Gwave									
	GAT									
	GRU									
	ASTGCN									
	STPN									
	STCGAT									

Table 5: Identification of performance indicators in 33 matches

ID	Coordination		Distribution		Tempo		Flexibilty		Pressing		Result
	H***	O	H	O	H	O	H	O	H	O	
1	7.61	4.00	62.25	12.60	539.50	1476.57	32.42	28.58	42.37	51.23	win
2	2.88	8.25	28.71	11.17	1019.95	692.49	29.30	27.34	46.36	49.81	tie
3	5.10	9.00	8.43	34.17	634.78	596.98	27.77	27.03	40.43	52.02	loss
4	6.01	5.66	6.14	62.40	760.01	934.64	32.74	31.94	44.14	51.62	loss
30	5.61	3.00	62.25	7.13	707.96	2018.52	30.94	30.18	50.75	58.75	win
31	*6.58*	4.21	20.10	13.87	986.98	1014.37	32.53	26.66	44.20	50.13	win
33	*3.75*	3.35	39.83	21.90	1159.30	479.62	29.43	27.61	51.34	51.20	tie

Table 6: Notations

Symbol	Definition
L	Total links of network
ρ	Network Density
w_{ij}	Number of passes
d_{ij}	topological distance
D	Network Diameter
$C(i)$	Clustering Coefficient
f	ratio of goals to shots
d	ratio of defenses to losses
φ	Distribution of contributes
t_b	50-ball Passing Time
μ_i	Number of shots
ν_i	Number of defenses
S	Score of teamwork
β_i	Weight of indicators
γ	Coordination among players