

Front End Introduction

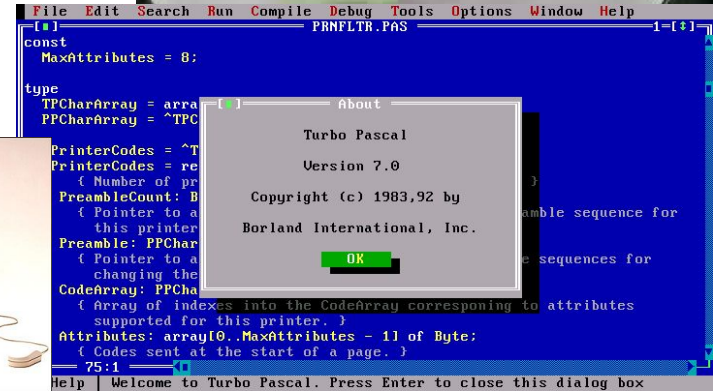


Mark MacCabe

<https://www.linkedin.com/in/mmaccabe/>

- BA in Information Systems, Minor Computer Science
- 15+ years of experience in IT
- Background in:
 - Many programming languages
 - Project/Account Management
 - AI/ML
 - Sales/ Pre-Sales Engineering
 - Robotics
- Currently working at ReTech Labs as a Director of Customer Success

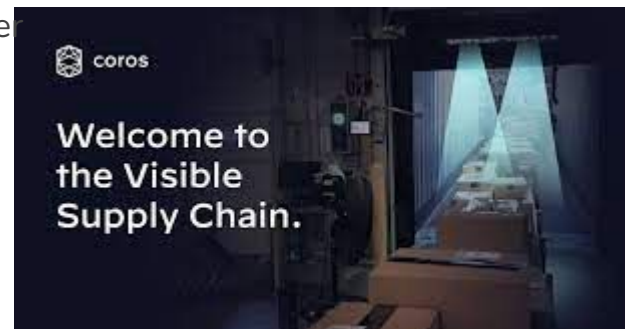
First Programming Languages: Basic & Pascal





Jordan Herzig

- BA in Computer Information Technology
- 12 years of experience in IT
- Background in:
 - HTML, CSS, JavaScript, .NET, Angular, Python
 - Project Management
 - Customer Success
 - Robotics
 - Artificial Intelligence/Machine Learning
- Currently working at Coros as a Senior Customer Manager



Meet the Class





Introductions

- Name
- Coding Experience
- What is your reason for taking this course?
- Hobby



Class Structure

Tuesday @ 5:30pm CST - 2 hours

- 50 minutes of lecture

- 10 minute break

- 60 applying what we learned to code

Thursday @ 5:30pm CST - 2 hours

- 2 hour coding assignment

Friday @ 4:00 / 5:30 Whatever pm CST - 1 hour

- 1 hour “open door” for anyone to join and ask questions - must sign up!

Need Help? Send Mark-M or Jordan-H a message on Slack to setup a time!



Passing the Class

- Attendance
- Final Project





What to expect from Front End Development Course

- Introduction to Programming
- Learn HTML development
- Learn CSS development
- Learn Javascript development
- How to connect to APIs
- Database structures
- How to build scalable web pages for a range of devices
- Design philosophies for user experience
- Deploying your website to the cloud





Class Syllabus and Main Site

<http://spring2023.uoadev.com/>

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- A portrait of a woman in a purple and black dress, holding a book, with a dark, floral headpiece. The woman is depicted from the waist up, facing slightly to the left but looking towards the viewer. She has dark hair styled in an updo, adorned with a large, dark, floral headpiece that includes a prominent yellow flower. She is wearing a dark, high-collared garment with a lace or floral pattern over a purple dress. Her right hand is holding a small, ornate book or fan. The background is a plain, light-colored wall.

Diagram for the computation by the Engine of the Numbers of Bernoulli. See Note G. (page 717 of app.)															
Number of Operations.		Variable in working state.	Variable in working result.	Definition of changes in the Variable.	Statement of Results.	Working Functions.						Result Functions.			
						$\frac{1}{2}B_0$	$\frac{1}{2}B_1$	$\frac{1}{2}B_2$	$\frac{1}{2}B_3$	$\frac{1}{2}B_4$	$\frac{1}{2}B_5$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$
1	$\frac{1}{2}B_0 = 1$	$\frac{1}{2}B_0$	$\frac{1}{2}B_0$	$\frac{1}{2}B_0 = 1$	$\frac{1}{2}B_0 = 1$	$\frac{1}{2}B_0$	$\frac{1}{2}B_1$	$\frac{1}{2}B_2$	$\frac{1}{2}B_3$	$\frac{1}{2}B_4$	$\frac{1}{2}B_5$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$
2	$\frac{1}{2}B_1 = 0$	$\frac{1}{2}B_1$	$\frac{1}{2}B_1$	$\frac{1}{2}B_1 = 0$	$\frac{1}{2}B_1 = 0$	$\frac{1}{2}B_1$	$\frac{1}{2}B_2$	$\frac{1}{2}B_3$	$\frac{1}{2}B_4$	$\frac{1}{2}B_5$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$
3	$\frac{1}{2}B_2 = 1$	$\frac{1}{2}B_2$	$\frac{1}{2}B_2$	$\frac{1}{2}B_2 = 1$	$\frac{1}{2}B_2 = 1$	$\frac{1}{2}B_2$	$\frac{1}{2}B_3$	$\frac{1}{2}B_4$	$\frac{1}{2}B_5$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$
4	$\frac{1}{2}B_3 = 0$	$\frac{1}{2}B_3$	$\frac{1}{2}B_3$	$\frac{1}{2}B_3 = 0$	$\frac{1}{2}B_3 = 0$	$\frac{1}{2}B_3$	$\frac{1}{2}B_4$	$\frac{1}{2}B_5$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$
5	$\frac{1}{2}B_4 = 1$	$\frac{1}{2}B_4$	$\frac{1}{2}B_4$	$\frac{1}{2}B_4 = 1$	$\frac{1}{2}B_4 = 1$	$\frac{1}{2}B_4$	$\frac{1}{2}B_5$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$
6	$\frac{1}{2}B_5 = 0$	$\frac{1}{2}B_5$	$\frac{1}{2}B_5$	$\frac{1}{2}B_5 = 0$	$\frac{1}{2}B_5 = 0$	$\frac{1}{2}B_5$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$
7	$\frac{1}{2}B_6 = 1$	$\frac{1}{2}B_6$	$\frac{1}{2}B_6$	$\frac{1}{2}B_6 = 1$	$\frac{1}{2}B_6 = 1$	$\frac{1}{2}B_6$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$
8	$\frac{1}{2}B_7 = 0$	$\frac{1}{2}B_7$	$\frac{1}{2}B_7$	$\frac{1}{2}B_7 = 0$	$\frac{1}{2}B_7 = 0$	$\frac{1}{2}B_7$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$
9	$\frac{1}{2}B_8 = 1$	$\frac{1}{2}B_8$	$\frac{1}{2}B_8$	$\frac{1}{2}B_8 = 1$	$\frac{1}{2}B_8 = 1$	$\frac{1}{2}B_8$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$
10	$\frac{1}{2}B_9 = 0$	$\frac{1}{2}B_9$	$\frac{1}{2}B_9$	$\frac{1}{2}B_9 = 0$	$\frac{1}{2}B_9 = 0$	$\frac{1}{2}B_9$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$
11	$\frac{1}{2}B_{10} = 1$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{10} = 1$	$\frac{1}{2}B_{10} = 1$	$\frac{1}{2}B_{10}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$
12	$\frac{1}{2}B_{11} = 0$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{11} = 0$	$\frac{1}{2}B_{11} = 0$	$\frac{1}{2}B_{11}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$
13	$\frac{1}{2}B_{12} = 1$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{12} = 1$	$\frac{1}{2}B_{12} = 1$	$\frac{1}{2}B_{12}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$
14	$\frac{1}{2}B_{13} = 0$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{13} = 0$	$\frac{1}{2}B_{13} = 0$	$\frac{1}{2}B_{13}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$
15	$\frac{1}{2}B_{14} = 1$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{14} = 1$	$\frac{1}{2}B_{14} = 1$	$\frac{1}{2}B_{14}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$
16	$\frac{1}{2}B_{15} = 0$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{15} = 0$	$\frac{1}{2}B_{15} = 0$	$\frac{1}{2}B_{15}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$
17	$\frac{1}{2}B_{16} = 1$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{16} = 1$	$\frac{1}{2}B_{16} = 1$	$\frac{1}{2}B_{16}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$
18	$\frac{1}{2}B_{17} = 0$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{17} = 0$	$\frac{1}{2}B_{17} = 0$	$\frac{1}{2}B_{17}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$
19	$\frac{1}{2}B_{18} = 1$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{18} = 1$	$\frac{1}{2}B_{18} = 1$	$\frac{1}{2}B_{18}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$
20	$\frac{1}{2}B_{19} = 0$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{19} = 0$	$\frac{1}{2}B_{19} = 0$	$\frac{1}{2}B_{19}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$
21	$\frac{1}{2}B_{20} = 1$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{20} = 1$	$\frac{1}{2}B_{20} = 1$	$\frac{1}{2}B_{20}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$
22	$\frac{1}{2}B_{21} = 0$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{21} = 0$	$\frac{1}{2}B_{21} = 0$	$\frac{1}{2}B_{21}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$
23	$\frac{1}{2}B_{22} = 1$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{22} = 1$	$\frac{1}{2}B_{22} = 1$	$\frac{1}{2}B_{22}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$
24	$\frac{1}{2}B_{23} = 0$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{23} = 0$	$\frac{1}{2}B_{23} = 0$	$\frac{1}{2}B_{23}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$
25	$\frac{1}{2}B_{24} = 1$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{24} = 1$	$\frac{1}{2}B_{24} = 1$	$\frac{1}{2}B_{24}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$
26	$\frac{1}{2}B_{25} = 0$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{25} = 0$	$\frac{1}{2}B_{25} = 0$	$\frac{1}{2}B_{25}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$
27	$\frac{1}{2}B_{26} = 1$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{26} = 1$	$\frac{1}{2}B_{26} = 1$	$\frac{1}{2}B_{26}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$
28	$\frac{1}{2}B_{27} = 0$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{27} = 0$	$\frac{1}{2}B_{27} = 0$	$\frac{1}{2}B_{27}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$
29	$\frac{1}{2}B_{28} = 1$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{28} = 1$	$\frac{1}{2}B_{28} = 1$	$\frac{1}{2}B_{28}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$
30	$\frac{1}{2}B_{29} = 0$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{29} = 0$	$\frac{1}{2}B_{29} = 0$	$\frac{1}{2}B_{29}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$
31	$\frac{1}{2}B_{30} = 1$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{30} = 1$	$\frac{1}{2}B_{30} = 1$	$\frac{1}{2}B_{30}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$
32	$\frac{1}{2}B_{31} = 0$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{31} = 0$	$\frac{1}{2}B_{31} = 0$	$\frac{1}{2}B_{31}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$
33	$\frac{1}{2}B_{32} = 1$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{32} = 1$	$\frac{1}{2}B_{32} = 1$	$\frac{1}{2}B_{32}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2}B_{41}$
34	$\frac{1}{2}B_{33} = 0$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{33} = 0$	$\frac{1}{2}B_{33} = 0$	$\frac{1}{2}B_{33}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2}B_{41}$	$\frac{1}{2}B_{42}$
35	$\frac{1}{2}B_{34} = 1$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{34} = 1$	$\frac{1}{2}B_{34} = 1$	$\frac{1}{2}B_{34}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2}B_{41}$	$\frac{1}{2}B_{42}$	$\frac{1}{2}B_{43}$
36	$\frac{1}{2}B_{35} = 0$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{35} = 0$	$\frac{1}{2}B_{35} = 0$	$\frac{1}{2}B_{35}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2}B_{41}$	$\frac{1}{2}B_{42}$	$\frac{1}{2}B_{43}$	$\frac{1}{2}B_{44}$
37	$\frac{1}{2}B_{36} = 1$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{36} = 1$	$\frac{1}{2}B_{36} = 1$	$\frac{1}{2}B_{36}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2}B_{41}$	$\frac{1}{2}B_{42}$	$\frac{1}{2}B_{43}$	$\frac{1}{2}B_{44}$	$\frac{1}{2}B_{45}$
38	$\frac{1}{2}B_{37} = 0$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{37} = 0$	$\frac{1}{2}B_{37} = 0$	$\frac{1}{2}B_{37}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2}B_{41}$	$\frac{1}{2}B_{42}$	$\frac{1}{2}B_{43}$	$\frac{1}{2}B_{44}$	$\frac{1}{2}B_{45}$	$\frac{1}{2}B_{46}$
39	$\frac{1}{2}B_{38} = 1$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{38} = 1$	$\frac{1}{2}B_{38} = 1$	$\frac{1}{2}B_{38}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2}B_{41}$	$\frac{1}{2}B_{42}$	$\frac{1}{2}B_{43}$	$\frac{1}{2}B_{44}$	$\frac{1}{2}B_{45}$	$\frac{1}{2}B_{46}$	$\frac{1}{2}B_{47}$
40	$\frac{1}{2}B_{39} = 0$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{39} = 0$	$\frac{1}{2}B_{39} = 0$	$\frac{1}{2}B_{39}$	$\frac{1}{2}B_{40}$	$\frac{1}{2$							



HTML

- HTML stands for Hyper Text Markup Language
- HTML is the standard language used for web pages
- HTML is made up of elements
- HTML tells a browser (chrome, firefox, edge, safari) how to display content
- HTML elements label pieces of content (example: paragraphs, headings, links, etc)

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```



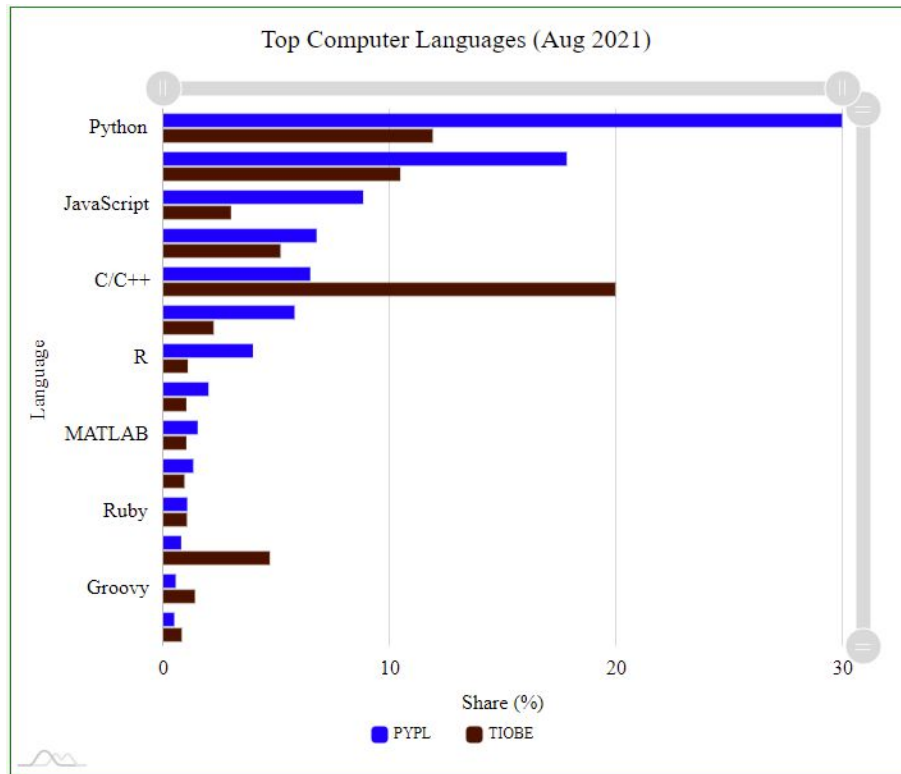
CSS

- CSS stands for Cascading Style Sheets
- CSS tells pieces of HTML code how to be displayed on a webpage
- CSS can control multiple web pages at once

```
body {  
  background-color: blue;  
}  
  
h1 {  
  color: red;  
}  
  
p {  
  font-size: 15px;  
}
```

Javascript

- Javascript was invented in 1995 by Brendan Eich
- It is currently the 2nd most popular coding language used today
- Javascript is used to manipulate features on a web page
 - Show/Hide content based on permissions
 - Capture user input
 - Run animations
 - Basically it does all the work!





What is an IDE?

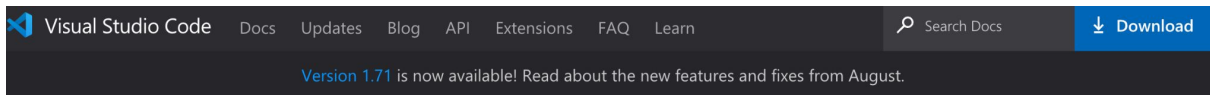
- IDE stands for integrated development environment
- It is a program or software you use to write code
- Some popular IDEs are:
 - Visual Studio Code
 - Visual Studio
 - Eclipse
 - NetBeans
 - Xcode
- The IDE you chose typically is related to the coding language you are using
- For this class we will use Visual Studio Code

Let's get it installed!



Visual Studio Code setup

<https://code.visualstudio.com/>



Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



↓ Windows

Windows 8, 10, 11

User Installer [64 bit](#) [32 bit](#) [ARM](#)
System Installer [64 bit](#) [32 bit](#) [ARM](#)
.zip [64 bit](#) [32 bit](#) [ARM](#)



↓ .deb

Debian, Ubuntu

↓ .rpm

Red Hat, Fedora, SUSE

.deb [64 bit](#) [ARM](#) [ARM 64](#)
.rpm [64 bit](#) [ARM](#) [ARM 64](#)
.tar.gz [64 bit](#) [ARM](#) [ARM 64](#)
[Snap Store](#)



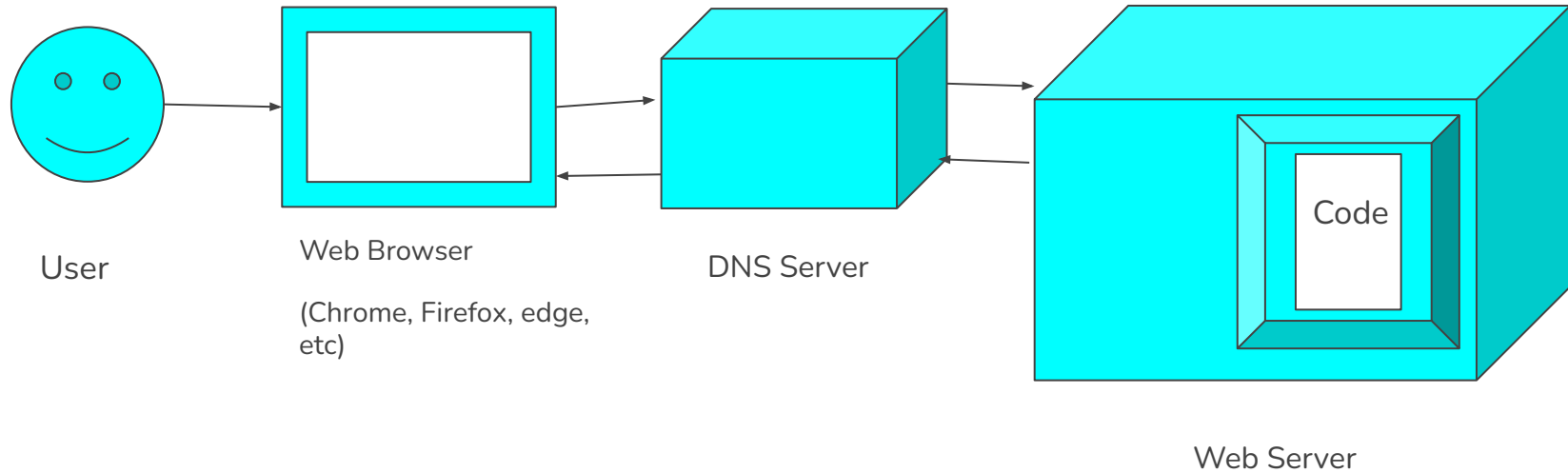
↓ Mac

macOS 10.11+

.zip [Universal](#) [Intel Chip](#) [Apple Silicon](#)



How does a website work?





Class resources

<http://spring2023.uoadev.com/>