

# Welcome to CSE 123!

Hitesh Boinpally  
Summer 2023

# Agenda

- About us
- About this course
  - Learning objectives
  - Other similar courses
  - Course components
- Our learning model
- Tools and resources
  - Course Website
  - Ed
  - IntelliJ
- Assessment and grading
- Collaboration

# Agenda

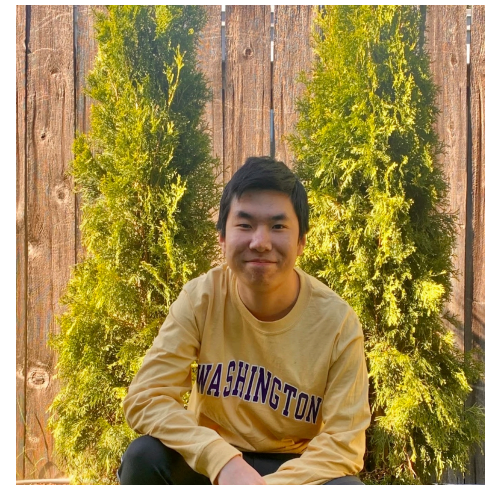
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# Hi, I'm Hitesh! (he/him)

- 5<sup>th</sup> Year Master's Student in CS
- Intro TA for 8 quarters
  - CSE 143
  - CSE 122
  - CSE 123
- First time instructor!
- Office Hours: Tuesdays 1-3pm
  - CSE1 216 and on Zoom



# Meet your 8 TAs!



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# Learning Objectives

*or, “What will I learn in this class?”*

## **Seven themes:**

- Computational Thinking
- Code Comprehension
- Code Writing
- Communication
- Testing
- Debugging
- Ethics/Impact

# Prerequisite Knowledge

- Comfort with control structures
  - loops, conditionals, methods/functions
- Experience with using basic data structures
  - arrays, lists, sets, maps
- Experience with console and file input/output
- Exposure to simple object-oriented programming
  - classes, interfaces
- Programming experience *in Java*
  - Or willingness to pick up on your own



# Other Similar Courses

Course	Good choice if...
CSE 123	<ul style="list-style-type: none"><li>• You done a fair bit of programming, at least some of which is in Java AND</li><li>• You are, or want to be, in a major such as CS, CE, ECE, Info, etc. that requires Java programming OR</li><li>• You're interested in creating software (whether as a hobby, side-gig, career, etc.)</li></ul>
CSE 122	<ul style="list-style-type: none"><li>• You've done some programming (roughly one course worth) in <i>any</i> programming language AND</li><li>• You are, or want to be, in a major such as CS, CE, ECE, Info, etc. that requires Java programming</li></ul>
CSE 143*	<ul style="list-style-type: none"><li>• You took CSE 142 at UW, at a community college, or through UW in the High School</li></ul>
CSE 163	<ul style="list-style-type: none"><li>• You're interested in data science and analysis OR</li><li>• You want to learn Python* OR</li><li>• You are, or want to be, in a major such as Physics, Bio, Stat, etc. where analyzing data through programming is useful</li></ul>
CSE 154*	<ul style="list-style-type: none"><li>• You're interested in web development (HTML, CSS, JS)</li></ul>

See [Guided Self-Placement](#) and [Introductory Courses](#) for more info

\* Not offered this summer

# Help Us Improve!

- CSE 123 is *still brand new!*
- We worked hard to build a course we think will be effective and supportive and help you succeed
- We probably didn't get it all right
  
- We appreciate your patience and understanding if we need to make adjustments during the quarter
- Please give us lots of feedback!
  - Post on Ed and/or use the Anonymous Feedback Tool

# Course Components

## Lessons (aka Lectures)

- WF, 10:50
- Held live on campus; recordings released after
- First introductions to course concepts
- Mix of presentation of content and practice activities/problems
- Required (but not graded) pre-work for most sessions

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## Sections

- TuTh, various times
- Led by TAs
- Held live in person; **not** recorded
  - Materials will be released online afterwards
- Additional review, discussion, and practice
- Mostly practice problems

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*Attendance is not taken, but you are responsible for all material (including announcements).*

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# Digression: A Pandemic Hobby

*Amigurumi*: Japanese art of creating crocheted or knitted stuffed toys





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# Course Culture and Support

- Currently almost 100 students enrolled!
  - Wide range of backgrounds, interests, and goals
- Support and help each other!
  - Form study groups
  - If you have a question, others almost certainly do too
- Lots of ways to get support from us
  - Message board, IPL, section

# Course Culture and Support

- Policies designed with flexibility in mind
  - Resubmissions/Retakes, lecture recordings, etc.
- But life and the world still happen...
- ***Please reach out ASAP if you're struggling or have circumstances that require extra support***

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# Course Website

cs.uw.edu/123

- Primary source of course information (*not* Canvas)
- Calendar will contain links to (almost) all resources

**CSE 123**

- Home / Calendar
- Programming Assignments
- Creative Projects
- Exam
- Staff
- Office Hours
- Syllabus
- Grading Rubric
- COVID-19 Safety
- Resources

Course Tools [↗](#)

- EdStem
- Anonymous Feedback

**Attention!** This website is still **under development**. More information will be added soon and all content is subject to change.

## Introduction to Computer Programming III Summer 2023

**Welcome to CSE 123: Introduction to Computer Programming III** 🎉

- ▶ What is this class? What will I learn?
- ▶ Prior Experience and Expectations

If you want to learn more about the course and its policies, please check out our [course syllabus](#).

**Feedback** Feedback is always welcome! You can contact the [the course staff](#) or [submit anonymous feedback](#).

**Registration** Please **do not** email the course staff or instructors regarding registration for the course. The course staff do not have access to add codes. Please email [ugrad-adviser@cs.washington.edu](mailto:ugrad-adviser@cs.washington.edu) for assistance.

### Announcements

# Course Website

*Please review the syllabus ASAP.*

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## Syllabus

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### Course Information

Teaching Staff  
Instructor: Hitesh Boinpally  
Instructor Email: [hiteshb@cs.washington.edu](mailto:hiteshb@cs.washington.edu)  
Registration Questions: CSE Advisers ([ugrad-adviser@cs.washington.edu](mailto:ugrad-adviser@cs.washington.edu))  
Course Staff and Support Hours: [Course Staff and Office Hours](#)

► Who to contact?

### Class Session Meeting

See [Class Sessions](#) for information on how each day of class will be run.

- WF: 10:50 am - 11:50 am (PAA A102)

### Other Info

- Prerequisite (Recommended): CSE 122 or completion of Paul G. Allen School's [Guided Self-Placement](#)
- Course Website: Here! (<https://courses.cs.washington.edu/courses/cse123/23su> or <https://cs.uw.edu/123>)
- Textbook (Optional; Not Required): [Building Java Programs by Reges and Stepp \(5<sup>th</sup> Edition\)](#)

- 1) Course Information
- 2) Course Goals
  - 2.1) Learning Objectives
- 3) Software and Textbooks
- 4) Class Sessions and Quiz Sections
  - 4.1) Class Sessions
  - 4.2) Quiz Sections
- 5) Inclusion
- 6) Required Course Work, Resubmissions, and Late Work
- 7) Getting Help from Staff & Peers
- 8) Course Climate
  - 8.1) Extenuating Circumstances: "Don't Suffer in Silence"
  - 8.2) Disabilities
  - 8.3) Religious Accommodations
- 9) Grades

## CSE 123

Home / Calendar

Programming Assignments

Creative Projects

Exam

Staff

Office Hours

**Syllabus**

Grading Rubric

COVID-19 Safety

Resources

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Course Tools [↗](#)

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## Announcements

# Ed

- Our online learning platform
- Lessons, sections, assignments posted
  - Linked from calendar
- Submit graded work
- Receive/View feedback
- Message board
  - Including announcements

CSE 123

- Home / Calendar
- Programming Assignments
- Creative Projects
- Staff
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- Syllabus
- Grading Rubric
- COVID-19 Safety
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Course Tools [↗](#)

- EdStem**
- Anonymous Feedback

ed CSE 123 - 23su - Ed Discussion

Search

Filter

Welcome to CSE 123! 🎉  
General Hitesh Boinpally STAFF 2d 10 13

Welcome to Ed!  
General Hitesh Boinpally STAFF 2d 3

This Week

DRS Accomodations  
General Anonymous 1d 1

Select a thread



# IntelliJ

- Integrated Development Environment (IDE)
- Used in the “real-world” to develop programs
- Scary at first, but makes debugging much easier
  - Especially with data structures

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# Assignments and Grading

- Our goal in the course is for you to **gain proficiency the concepts and skills** we teach
- We assess your proficiency by asking you to apply the concepts and skills on tasks or problems
- By necessity, we are assessing your *work* as a proxy for your proficiency

# Assignments

- Your learning in this course will be assessed in four ways:
  - Programming Assignments (~biweekly, 4 total)
    - Structured programming assignments to assess your proficiency of programming concepts
  - Creative Projects (~biweekly, 3 total)
    - Smaller, more open-ended assignments to give you space to explore
  - Quizzes (3 total, take-home)
    - Series of problems covering all material up to that point
  - Final Exam (Thursday, August 17 and Friday, August 18)
    - Final, culminating assessment of all your skills and knowledge

# Resubmission/Retakes

*Learning takes time, and doesn't always happen on the first try*

- One previous Programming Assignment or Creative Project can be **resubmitted** each week
  - Must be accompanied by a write-up describing changes (via Google Form)
  - Grade on resubmission will replace original grade
  - Each assignment should only be resubmitted once
- See the [syllabus](#) for more details

# Grading

*Grades should reflect your proficiency in the course objectives*

- All assignments will be graded **E (Excellent), S (Satisfactory), or N (Not yet)**
  - Under certain circumstances, a grade of U (Unassessable) may be assigned
  - In some cases, not all grades will be given
- Final grades will be assigned based on the **amount of work at each level**
- See the [syllabus](#) for more details

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# Collaboration Policy

*Learning is hard, but it's easier when you learn from each other*

- You are encouraged to form study groups; work together on pre-class work, practice and review; and discuss your ideas and approaches
- All work you submit for grading **must be *predominantly and substantially your own***
- Work that violates policy may be withdrawn within 72 hours
- See the [syllabus](#) for more details



# Quick aside: Chat GPT

Who is taller Shaq or Yao Ming?

Shaquille O'Neal is taller than Yao Ming. Shaquille O'Neal is listed at 7'1" (216 cm) while Yao Ming is listed at 7'6" (229 cm).

Woudn't that make Yao Ming taller?

Yes, Yao Ming is taller than Shaquille O'Neal. Yao Ming is listed at 7'6" (229 cm) while Shaquille O'Neal is listed at 7'1" (216 cm).

How many countries start with the letter v?

There are no countries that start with the letter "v".

Are you sure about that?

Yes, I'm sure. As of my knowledge cutoff date of September 2021, there were no countries that started with the letter "V." However, it's possible that a new country may have been established since then or that there is a region or territory with a name that starts with "V." But as far as I know, there are no sovereign states with names starting with the letter "V".

it's currently 2022-12-30. how many days ago was 2022-11-05? please do the math

There are 25 days between November 5, 2022 and December 30, 2022.

that's incorrect

I apologize for the mistake. There are 56 days between November 5, 2022 and December 30, 2022.



$$241 - (-241) + 1$$



$241 - (-241) + 1$  is equivalent to  $241 + 241 + 1$ , which simplifies to  $483 + 1$ . So  $241 - (-241) + 1$  is equal to 484.

# Quick aside: Chat GPT



Please write some JavaScript code to test if a string is a palindrome



Here is some JavaScript code that tests if a string is a palindrome:



```
function isPalindrome(str) {  
  // Remove any non-alphanumeric characters and convert the string to  
  lowercase  
  var cleanStr = str.replace(/[^a-z0-9]/gi, '').toLowerCase();  
  
  // Create a new string that is the reverse of the clean string  
  var reverseStr = cleanStr.split('').reverse().join('');  
  
  // Return true if the reverse string is equal to the clean string, and  
  false otherwise  
  return reverseStr === cleanStr;  
}
```

Here is how you could use this function:

```
var testStr1 = "A man, a plan, a canal, Panama!";  
console.log(isPalindrome(testStr1)); // Output: true  
  
var testStr2 = "This is not a palindrome";  
console.log(isPalindrome(testStr2)); // Output: false
```

The function first removes any non-alphanumeric characters from the string and converts it to lowercase. It then creates a new string that is the reverse of the clean string, and returns true if the reverse string is equal to the original clean string. This is a simple but effective way to test if a string is a palindrome.



Using this function can you test if "red lock colder" is a palindrome?



Yes, you can use the `isPalindrome()` function to test if "red lock colder" is a palindrome. Here is how you would do that:



```
var testString = "red lock colder";  
console.log(isPalindrome(testString)); // Output: false
```

The output of this code will be `false`, because "red lock colder" is not a palindrome. Palindromes are words or phrases that are spelled the same forwards and backwards, but "red lock colder" is not spelled the same forwards and backwards.

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We're excited for the quarter!

