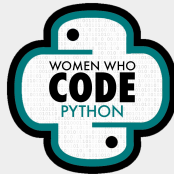


# Welcome to Leetcode Study Group!

## Before we begin...

- Session materials:  
<https://github.com/WomenWhoCode/WWCodePython>
- Set your chat to “All panelists and attendees” and share your thoughts there
- Ask any questions using the Q&A button
- Have fun and make some coding friends!



# WELCOME

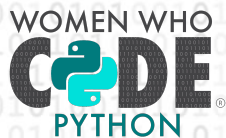
## WOMEN WHO

# CODE



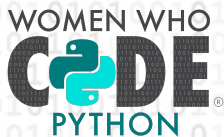
# Our Mission

Inspiring women to  
excel in technology  
careers.



# Our Vision

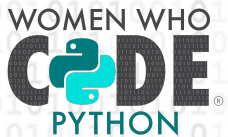
A world where diverse women are better represented as engineers and tech leaders





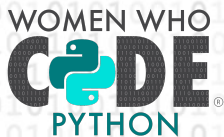
# Our Values

- + Focus on the mission
- + Live Leadership
- + Punch above your weight
- + Inclusion at the core



# Our Target

Engineers with two or more years of experience looking for support and resources to strengthen their influence and levelup in their careers.



# 290,000

## Members

70 networks in 20 countries

122+ countries

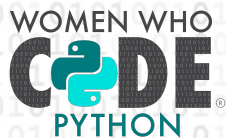
14K+ events

\$1025 daily Conference tickets

\$2M Scholarships

Access to [jobs](#) + [resources](#)

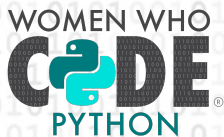
Infinite connections





# OUR MOVEMENT

As the world changes, we  
can be a connecting force  
that creates a sense of  
belonging while the world is  
being asked to isolate.





# Code of Conduct

**WWCode is an inclusive community**, dedicated to providing an empowering experience for everyone who participates in or supports our community, regardless of gender, gender identity and expression, sexual orientation, ability, physical appearance, body size, race, ethnicity, age, religion, socioeconomic status, caste, creed, political affiliation, or preferred programming language(s).

Our events are intended to inspire women to excel in technology careers, and anyone who is there for this purpose is welcome. We do not tolerate harassment of members in any form. Our [Code of Conduct](#) applies to all WWCode events and online communities.

Read the full version and access our incident report form at  
[womenwhocode.com/codeofconduct](https://womenwhocode.com/codeofconduct)

# WOMEN WHO **CODE**® /connect

## CONNECT Forward 2021

November 18 & November 19, 2021

Join the largest and most active community of technical women for two days of career advancement, connection, and more!

REGISTER

Register  
here:

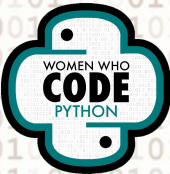


Get 50% off your Member ticket!  
Promo Code: **WWCODEPYTHON**





# LeetCode Study Group





# Meet Your Team!



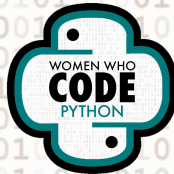
**Chethana**

Lead / Associate Software Engineer



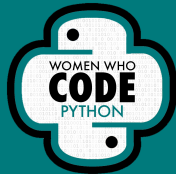
**Karen**

Lead / Programmer



# Today's Agenda

1. Guessing game
2. Binary search
3. Deep dive of Search in Rotated Sorted Array
  - a. Problem Discussion
  - b. Test cases
  - c. Approaches with time complexity
  - d. Live coding
4. Next problems to tackle
5. Q&A

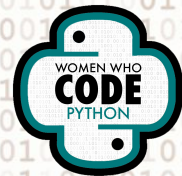




# Guessing game

## Let's go!

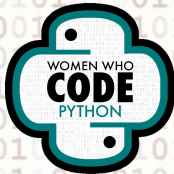
<https://replit.com/@codernewbie/WWCodePythonLeetcode#BinarySearch/IntroScratchPad.py>



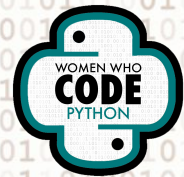


# Binary Search - What is it?

- You perform a search by reducing the search space (data structure) by half every time until you get to that last 1 element
- You may find your target before you hit the last element or that last element may be your target
- But once we hit that last element the algorithm stops



**How does this work?**





# Conditions to use it

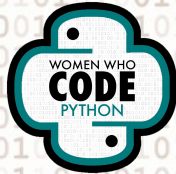
1. Input must be sorted (in some type of order)
2. The order in which it is sorted should be compatible with the search algorithm

Input => [-1, 6, 7, 10, 15]

Sorting algorithm => checks/compares based on ascending order

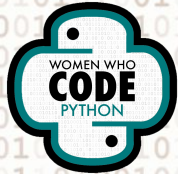
Input => [90, 4, 2, -10, -15, -100]

Sorting algorithm => checks/compares based on descending order





**Time complexity?**



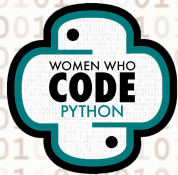
# Problem

## Example - Search in rotated sorted array

*There is an integer array `nums` sorted in ascending order (with distinct values).*

*Prior to being passed to your function, `nums` is possibly rotated at an unknown pivot index  $k$  ( $1 \leq k < \text{nums.length}$ ) such that the resulting array is `[nums[k], nums[k+1], ..., nums[n-1], nums[0], nums[1], ..., nums[k-1]]` (0-indexed). For example, `[0,1,2,4,5,6,7]` might be rotated at pivot index 3 and become `[4,5,6,7,0,1,2]`.*

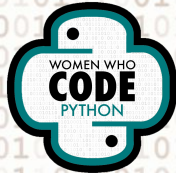
*Given the array `nums` after the possible rotation and an integer `target`, return the index of `target` if it is in `nums`, or -1 if it is not in `nums`.*





# Simplification

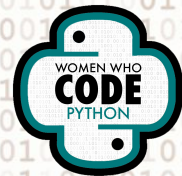
- integer array => nums
- nums is sorted in ascending order
- does not have duplicates
- $[0, 1, 2, 4, 5, 6, 7] \Rightarrow [4, 5, 6, 7, 0, 1, 2], k = 3$
- given "target", find the index of target in the rotated array "nums"
- if present, return that target index
- else, return -1





# Let's Code!

<https://replit.com/@codernewbie/WWCodePythonLeetcode>



# Next steps from here

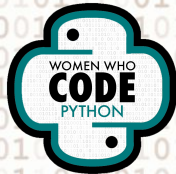
## Intersection of two arrays

*Given two integer arrays `nums1` and `nums2`, return an array of their intersection. Each element in the result must be unique and you may return the result in any order.*

Example:

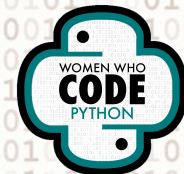
Input: `nums1 = [1,2,2,1]`, `nums2 = [2,2]`

Output: `[2]`



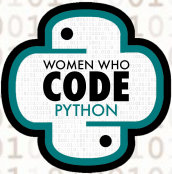


QnA Time!



# Useful Links

- [Leetcode Study group repo](#)
- [Repl link](#)
- Mock interview - Pramp
- Leetcode Weekly contest (and biweekly)





# Stay Connected!

**Register for Events and Join our community -**

**[womenwhocode.com/python](https://womenwhocode.com/python)**

**Email -**

**[python@womenwhocode.com](mailto:python@womenwhocode.com)**

**Social Media:** 



**@WWCodePython**



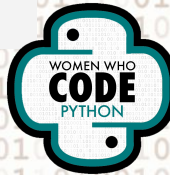
**Women Who Code  
Python**



**@WWCodePython**

## Upcoming Events

- Nov 4 - Greedy
- Nov 18 - Hashtable
- Dec 2 - DFS (and BFS discussion)
- Dec 16 - Backtracking
- ...more to come!



# Upcoming Events

SAT  
23  
OCT

## Bytes n' Brew I

📍 Online | Python | 2:00 AM – 3:00 AM CDT (UTC-0500)

Register

SAT  
23  
OCT

## Python Libraries 101 📖 *Featured, Recurring*

📍 Online | Python | 9:00 AM – 10:00 AM CDT (UTC-0500)

Register

SAT  
23  
OCT

## Bytes n' Brew II

📍 Online | Python | 11:00 AM – 12:00 PM CDT (UTC-0500)

Register

THU  
28  
OCT

## Introduction to Python for Automating Business & Financial Processes with Liberty Mutual *Featured*

📍 Online | Python | 4:00 PM – 5:00 PM CDT (UTC-0500)

Register

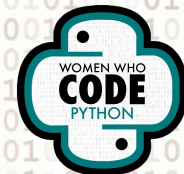
THU  
04  
NOV

## 🌟 LeetCode Series Study Group 🌟 *Featured, Recurring*

📍 Online | Python | 7:00 PM – 8:30 PM CDT (UTC-0500)

Register

Register at: <https://www.womenwhocode.com/python/events>





WOMEN WHO

**Thank You for Joining!**

CODE

