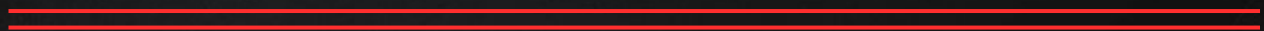




# DICTIONARY APPLICATION



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At Bright Future University, the Computer Science department is building a simple record system to manage student information. You have been hired as a Python programmer to help design the system. Each student's information should be stored inside a dictionary containing:

- **name** (e.g., "John Paul")
- **age** (e.g., 22)
- **courses** (a set of courses the student is currently enrolled in, e.g., *Math*, *Physics*, and *Computer Science*)
- **address** (another dictionary containing their **city** and **zip** code)

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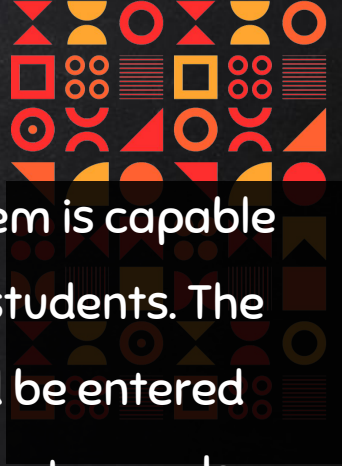
The department offers the following 20 List of unchangeable courses:

"Math", "Physics", "Computer Science", "Biology", "Chemistry",  
"Statistics", "English", "Economics", "History", "Philosophy",  
"Sociology", "Political Science", "Geography", "Psychology", "Art",  
"Music", "Engineering", "Law", "Medicine", "Business".

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Since the university has many students, The System is capable creating a new student dictionary record for different students. The details such as name, age, courses, and address should be entered by the user so that the system can store multiple student records.

For every new student created, ask for a unique username (e.g., based on the student's name). This username will act as the student's ID or you can say the student's record key in the general dictionary that holds all student.

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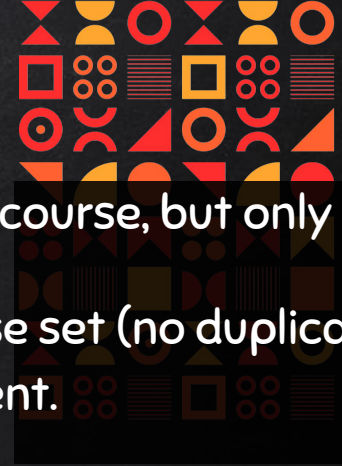


The head of the department gives you the following tasks to Build the system using functions:

1. Write a function that can display a student record in whole.
2. Write a function that displays only all the courses a particular student is offering.
3. Write a function that displays only the zip code from the student's address.
4. Write a function that displays only the students city from the student's address

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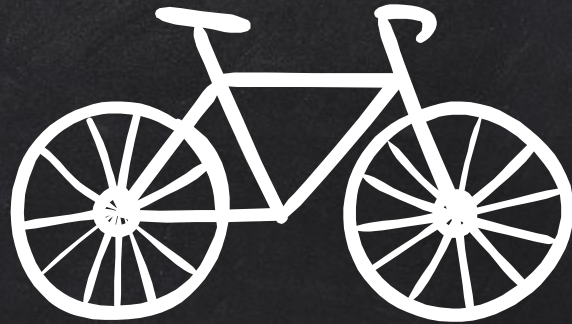
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5. Write a function that allows a student to add a new course, but only if:
  - The course is not already in the student's course set (no duplicates).
  - The course is officially offered by the department.
6. Write a function that remove or updates the students course in the set of course without introducing duplicate
7. Write a function that updates the student various field: age (e.g from 22 to 28 ), name , City and Zip code
8. Write a functions that displays the overall number of student in the system

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THANKS!

Hope that was fun?

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