PYTHON

Assignment

1: Create a set of student names in a class. Add a new student to the set and then remove one student. Print the final set.

2: Given two sets of student names who attended two different workshops, find out the common students who attended both workshops.

3: Create two sets containing the names of items bought by two friends. Find out which items were bought by both, only by the first friend, and only by the second friend.

4: Write a program that accepts a list of numbers and removes all duplicates by converting the list into a set.

5: Create a set of favorite movies. Then, create another set of movies currently playing in theaters. Find out which favorite movies are currently playing.

6: Write a function that accepts two lists of numbers and returns a set containing numbers that appear in either list but not both (symmetric difference).

7: Create a set of prime numbers less than 50. Check if a given number is prime by checking its membership in the set.

8: Write a program that accepts a paragraph of text, converts it into a set of unique words, and then counts the number of unique words.

9: Given a set of employees in a company, find out which employees are not in a list of employees who have completed their tasks.

10: Create a set of the first names of all people in a company. Then, add a list of new hires to the set and remove a list of retired employees.

11: Write a program that reads a list of numbers from the user, converts it into a set, and then prints the union, intersection, and difference of this set with another predefined set of numbers.

12: Given two sets of product codes from two different branches of a store, find out which product codes are unique to each branch.

13: Create a set of your top 5 favorite books. Write a program that checks if a given book title is one of your favorites.

14: Write a program that accepts two sets of exam scores (one from two different years) and finds out which scores are common in both years and which scores only appear in one year.

15: Given a set of skills required for a job and a set of skills possessed by a candidate, find out if the candidate is qualified for the job by checking if all required skills are present in the candidate's set.