1. The else belongs to the inner if false :

Becasuse The inner if and its corresponding else are from a pair .python automatically pairs else with the most recent unmatched if at the same indentation level. here the out put is B..

1. .In this code foo() runs first, prints "foo", and returns False. Since the if condition uses and, and the first part is false, Python doesn't run bar(). So, "bar" and "Hello" are not printed. The output is "foo"
2. . Modifying the loop variable i inside a for loop has no effect on the next value of loop. The loop still follows the original range(5) values .so the output will be – 01234
3. To find all tuples where the first element exists in the set ,I can use a simple list comprehension

6 .The loop runs infinitely because floating-point numbers like 0.1 cannot be represented exactly in binary. Adding 0.1 repeatedly to 1.0 never makes it exactly 1.5,it becomes something like 1.49999 ,so the condition x != 1.5 remains true forever. This causes the loop to run endlessly