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BE-AIML

Practical 3 precision and recall

CODE:

```
import java.util.*; public class
PrecisionRecall {     public static void
main(String[] args) {
        // Sample input
        Set<String> answerSet = new HashSet<>(Arrays.asList("doc1", "doc2", "doc4"));
        Set<String> relevantSet = new HashSet<>(Arrays.asList("doc2", "doc3", "doc4"));
        // Compute intersection
        Set<String> intersection = new HashSet<>(answerSet);
intersection.retainAll(relevantSet);
        // Precision
        double precision = (double) intersection.size() / answerSet.size();
        // Recall        double recall = (double) intersection.size() /
relevantSet.size();
        System.out.println("Answer set A: " + answerSet);
        System.out.println("Relevant set R1: " + relevantSet);
        System.out.println("Retrieved relevant documents (A ∩ R1): " + intersection);
        System.out.printf("Precision: %.2f\n", precision);
        System.out.printf("Recall: %.2f\n", recall);
    }
}
```

OUTPUT :

// Sample input

Set<String> answerSet = new HashSet<>(Arrays.asList("doc1", "doc2", "doc4"));

Set<String> relevantSet = new HashSet<>(Arrays.asList("doc2", "doc3", "doc4"));