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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 ( $A \cap R1$ ): " + 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"));
```

```
Microsoft Windows [Version 10.0.19045.6396]
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C:\Users\admin>cd C:\Users\admin\Desktop\pranali gadade

C:\Users\admin\Desktop\pranali gadade>javac PrecisionRecall.java

C:\Users\admin\Desktop\pranali gadade>java PrecisionRecall
Answer set A: [doc4, doc2, doc1]
Relevant set R1: [doc4, doc3, doc2]
Retrieved relevant documents (A n R1): [doc4, doc2]
Precision: 0.67
Recall: 0.67

C:\Users\admin\Desktop\pranali gadade>
```