Assignment - 3

Course Name: Artificial Intelligence Lab
Course Code: PMDS601P
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Slot: L13 + L14
Winter Semester 2024 - 25
VIT - Vellore

Due Date: September 28, 2024

Basic Instructions:

- Write each program in a new text file.

- Write your code and attach screenshots of the output obtained on running your program.

- The uploaded file on VTOP *must be a PDF file* (Word files will *not* be evaluated).

Write programs in Prolog to evaluate the following problems.

1. Write a Prolog program defining a binary arithmetic predicate `blahblah/2`, which takes as its first argument a number X, and returns in its second argument the number $X^X + 2$. For example:

```
?- blahblah(3, X).
X = 29.
true.
```

Convert `blahblah/2` into a binary operator in the same file. For instance:

```
?- 3 blahblah X.
X = 29.
true.
```

```
?- 3 blahblah 27.
false.
```

2. Convert your previously defined predicates of set union and set intersection to appropriately defined operators.