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IMPLEMENTATION OF A RANDOM NUMBER GENERATOR

ALGORITHM

A random number generator is a function that generates a sequence of numbers that are not predictable. It does so with the use an in built function known as the **rand()** function.

- we first include the necessary header files: **stdio.h**, **stdlib.h**, and **time.h**.
- The **srand()** function is used to initialize the random seed based on the current time. This ensures that the sequence of random numbers generated is different each time the program is run.
- We then prompt the user to enter the minimum and maximum values for the range of random numbers to generate
- He is then allowed to generate a random number each time he wishes to.

WORKING PRINCIPLE

1. Note that the formula **(rand() % (max - min + 1)) + min** generates a random number between **min** and **max**, inclusive.
2. The **%** operator gives the remainder of the division of **rand()** by **(max - min + 1)**, which ensures that the random number generated is within the range **0** to **(max - min).**
3. We then add **min** to this result to shift the range from **min** to **max**.

EXECUTION

```
          ---------     -----------
          Random Number Generator
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Enter the min value: 10
Enter the max value: 2004

Enter 1 to generate number
Enter 2 to exit

Enter choice : 1
481

Enter choice : 1
878

Enter choice : 1
857

Enter choice : 1
315

Enter choice : 1
1205

Enter choice : 1
146

Enter choice : 1
91

Enter choice : █
```