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```cpp
#include <iostream>
#include <vector>
#include <cstdlib>
#include <ctime>

bool hasSharedBirthday (int numPeople)
{
    const int daysInYear = 365;
    bool birthdays [daysInYear] = {false};

    for (int i=0; i < numPeople; i++)
    {
        int birthday = rand() % daysInYear;
        if (birthdays [birthday])
        {
            return true;
        }
        birthdays [birthday] = true;
    }
    return false;
}
```

```cpp
double      birthday Paradox Simulation (int numSimulations,
                                int numPeople)
{
        int     shared birthday count = 0;
for  (int i = 0; i < numSimulations; i++)
        {
        if (has shared birthday (numPeople))

                Shared birthday count ++ ;
        }
}

        double    probability = static_cast <double>
(shared Birthday () Count) / num Simulations;

        return   probability;
}

int    main ()
{

        srand (static_cast <unsigned> (time (0)) ;

        int      numPeople = 23;
        int      num Simulations = 1000;
```

```cpp
double    probability = birthday Paradox Simulation(
    num Simulations  , num People );

cout << "Probability of shared birthday
in a group of " << numPeople
<< "number of people " << probability
<< endl;


    return 0;

}.
```

Q2- Difference:

Privacy:-

Right to control one's personal information
, actions and choices. It encompasses an
individual ability to keep certain
aspects of their life private
and secure.

Confidentiality:-

Subset of privacy. It
involves the practice of
keeping specific information confidential

of secret especially in Proffesional or organizational Contexts.