Websocket

Oleg Bilovus

Motivation

The Basic Problem That
We Studied

Motivation 2

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# Performance Evaluation of Websocket Protocol for Implementation of Full-Duplex Web Streams

Oleg Bilovus

Università degli Studi di Salerno

1st Scalability Research Forum

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# Outline

## Motivation
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# What are Prime Numbers

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### Definition
A prime number is a number that has exactly two divisors.

# What are Prime Numbers

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### Example

▶ 2 is prime (two divisors: 1 and 2).

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### Example
- ▶ 2 is prime (two divisors: 1 and 2).
- ▶ 3 is prime (two divisors: 1 and 3).

# What are Prime Numbers

### Definition
A prime number is a number that has exactly two divisors.

### Example

▶ 2 is prime (two divisors: 1 and 2).

▶ 3 is prime (two divisors: 1 and 3).

▶ 4 is not prime (three divisors: 1, 2, and 4).

# There Is No Largest Prime Number

The proof uses *reductio ad absurdum*.

### Theorem
*There is no largest prime number.*

### Proof.

1. Suppose $p$ were the largest prime number.

4. But $q + 1$ is greater than 1, thus divisible by some
   prime number not in the first $p$ numbers. $\square$

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# What's Still To Do

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## Answered Questions

How many primes are there?

## Open Questions

Is every even number the sum
of two primes?

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# An Algorithm For Finding Primes Numbers.

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```cpp
int main (void)
{
  std::vector<bool> is_prime (100, true);
  for (int i = 2; i < 100; i++)




  return 0;
}
```

# An Algorithm For Finding Primes Numbers.

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```cpp
int main (void)
{
  std::vector<bool> is_prime (100, true);
  for (int i = 2; i < 100; i++)
   if (is_prime[i])
    {



    }
  return 0;
}
```

# An Algorithm For Finding Primes Numbers.

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```cpp
int main (void)
{
  std::vector<bool> is_prime (100, true);
  for (int i = 2; i < 100; i++)
   if (is_prime[i])
   {
     std::cout << i << " ";
     for (int j = i; j < 100;)
       is_prime[j] = false, j+=i);
   }
  return 0;
}
```

# An Algorithm For Finding Primes Numbers.

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```cpp
int main (void)
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   if (is_prime[i])
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     std::cout << i << " ";
     for (int j = i; j < 100;)
       is_prime[j] = false, j+=i);
   }
  return 0;
}
```

Note the use of std::.