

## Exercise: Parallelize Prime Number Generation

You are given a simple JavaScript code for generating prime numbers within a given range. However, the current implementation is not optimized for performance. Your task is to refactor the code to use Node.js worker threads and parallelize the prime number generation process.

### Instructions:

1. **Refactor the code:** Modify the existing code to use Node.js worker threads to parallelize the prime number generation process.
2. **Optimize performance:** Ensure that the prime number generation is split among multiple worker threads to take advantage of multi-core processors and make the overall process faster.
3. **Communication:** Implement a mechanism for the worker threads to communicate their results back to the main thread. Consider using the `workerData` and `parentPort` features provided by Node.js worker threads.
4. **Testing:** Verify that the refactored code produces the correct list of prime numbers for the given range.
5. **Sharing the Repository Link:** Share the link to your public repository. You can either send it via email or communicate it through your preferred channel for code sharing.

### Base Code:

```
const min = 2;
const max = 1e7;

const primes = [];

function generatePrimes(start, range) {
  let isPrime = true;
  let end = start + range;

  for (let i = start; i < end; i++) {
    for (let j = min; j < Math.sqrt(end); j++) {
      if (i !== j && i % j === 0) {
        isPrime = false;
        break;
      }
    }
    if (isPrime) {
      primes.push(i);
    }

    isPrime = true;
  }
}

generatePrimes(min, max);

const message = "Prime is : " + primes.join(" ");
console.log(message);
```