Zeotap Software Engineer Intern Assignment - ByteSize.java

ByteSize.java

```
package com.zeotap.data.io.common.types;

import java.util.Locale;
import java.util.regex.Matcher;
import java.util.regex.Pattern;

public class ByteSize {

    private static final Pattern BYTE_SIZE_PATTERN =
Pattern.compile("(\d+(?:\.\d+)?)([KMGTPE]?B)", Pattern.CASE_INSENSITIVE);

    private final long bytes;

    public ByteSize(long bytes) {
        this.bytes = bytes;
    }

    public long getBytes() {
        return bytes;
    }

    public static ByteSize parse(String input) {
        Matcher matcher =
BYTE_SIZE_PATTERN.matcher(input.trim().toUpperCase(Locale.ROOT));
        if (!matcher.matches()) {
            throw new IllegalArgumentException("Invalid byte size format: " + input);
        }

        double value = Double.parseDouble(matcher.group(1));
        String unit = matcher.group(2);

        long multiplier;
        switch (unit) {
            case "B":
                multiplier = 1L;
                break;
            case "KB":
                multiplier = 1024L;
                break;
            case "MB":
                multiplier = 1024L * 1024;
                break;
            case "GB":
                multiplier = 1024L * 1024 * 1024;
                break;
            case "TB":
                multiplier = 1024L * 1024 * 1024 * 1024;
                break;
            case "PB":
                multiplier = 1024L * 1024 * 1024 * 1024 * 1024;
                break;
            case "EB":
                multiplier = 1024L * 1024 * 1024 * 1024 * 1024 * 1024;
                break;
            default:
                    throw new IllegalArgumentException("Unsupported byte size unit: " +
unit);
        }

        return new ByteSize((long) (value * multiplier));
    }

    @Override
    public String toString() {
        return bytes + " bytes";
    }
}
```