

```
!pip install mrjob
```

```
Requirement already satisfied: mrjob in c:\users\kambl\appdata\local\programs\python\python39\lib\site-packages (0.7.4)
Requirement already satisfied: PyYAML>=3.10 in c:\users\kambl\appdata\local\programs\python\python39\lib\site-packages (from mrjob) (6.0)

[notice] A new release of pip is available: 24.2 -> 25.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

```
%%writefile grade_calculator.py
from mrjob.job import MRJob
import logging
```

```
class StudentGradeCalculator(MRJob):

    def mapper(self, _, line):
        """Reads student name and score, then assigns a grade."""
        name, score = line.split() # Split line into name and score
        score = int(score) # Convert score to integer

        # Assign grades based on the score
        if 90 <= score <= 100:
            grade = "A"
        elif 80 <= score <= 89:
            grade = "B"
        elif 70 <= score <= 69:
            grade = "C"
        elif 60 <= score <= 59:
            grade = "D"
        else:
            grade = "F"

        yield (name, grade)

    def reducer(self, name, grades):
        """Output the student's name and final grade."""
        yield (name, list(grades)[0])

if __name__ == '__main__':
    # ☒ Disable logging messages
    logging.getLogger().setLevel(logging.ERROR)
    StudentGradeCalculator.run()
```

```
Overwriting grade_calculator.py
```

```
!python grade_calculator.py students.txt 2>/dev/null
```

```
"Alice" "B"
"Bob" "C"
"Charlie" "A"
"David" "D"
"Emma" "F"
```

