

## ASSIGNMENT – IV

**TITLE :**

Create a MapReduce Program to Determine Student Grades.

**NAME :** Shinde Shubham Dnyandev.    **ROLL NO :** 23107121.    **CLASS :** TY-B

**PROGRAM :****INPUT :**

```
Pranav 85
Ajay 72
Omkar 90
Rohan 78
Suraj 88
Sandip 95
Rohit 65
Ravan 59
Karan 70
Amit 62
```

**MAPPER :**

```
#!/usr/bin/env python3
import sys

for line in sys.stdin:
    line = line.strip()
    if not line:
        continue
    try:
        name, marks = line.split()
        print(f'{name}\t{marks}')
    except ValueError:
        continue
```

**REDUCER :**

```
#!/usr/bin/env python3
import sys

def get_grade(marks):
    marks = int(marks)
    if marks >= 90:
        return "A+"
    elif marks >= 80:
        return "A"
    elif marks >= 70:
        return "B"
```

```
elif marks >= 60:  
    return "C"  
elif marks >= 50:  
    return "D"  
else:  
    return "F"  
  
for line in sys.stdin:  
    line = line.strip()  
    if not line:  
        continue  
    name, marks = line.split("\t")  
    grade = get_grade(marks)  
    print(f'{name}\tGrade: {grade}')
```

## OUTPUT :

File information - part-00000

[Download](#)

[Head the file \(first 32K\)](#)

[Tail the file \(last 32K\)](#)

Block information -- Block 0 ▾

Block ID: 1073741846  
Block Pool ID: BP-972600113-172.16.9.238-1759832939983  
Generation Stamp: 1022  
Size: 152  
Availability:

- ailcomp20

File contents

```
Ajay Grade: B  
Amit Grade: C  
Karan Grade: B  
Omkar Grade: A+  
Pranav Grade: A  
Ravan Grade: D  
Rohan Grade: B  
Rohit Grade: C  
Sandip Grade: A+  
Suraj Grade: A
```

[Close](#)