

```
1001,John,45
1002,Jane,68
1003,Bob,75
1004,Alice,55
1005,Charlie,90
1006,Eve,82
1007,David,63
1008,Frank,78
1009,Grace,92
1010,Henry,60
1011,Isabel,70
1012,Jack,80
1013,Kate,88
1014,Liam,50
1015,Mia,72
1016,Noah,65
1017,Olivia,85
1018,Peter,58
1019,Quinn,76
1020,Riley,95
```

mapper.py

```
#!/usr/bin/env python
```

```
import sys
```

```
# Input comes from standard input
for line in sys.stdin:
    # Remove leading and trailing whitespace
    line = line.strip()
    # Split the line into fields
    student_id, name, marks = line.split(',')
    # Emit key-value pairs where key is the student ID and value is the entire student record
    print('%s\t%s,%s' % (student_id, name, marks))
```

reducer.py

```
#!/usr/bin/env python
```

```
import sys
```

```
# Input comes from standard input
for line in sys.stdin:
    # Remove leading and trailing whitespace
    line = line.strip()
```

```
# Split the line into fields
student_id, details = line.split('\t')
# Split the details into name and marks
name, marks = details.split(',')
# Check if the student's name starts with 'J'
if name.startswith('J'):
# Output the student details
print('%s,%s,%s' % (student_id, name, marks))
```