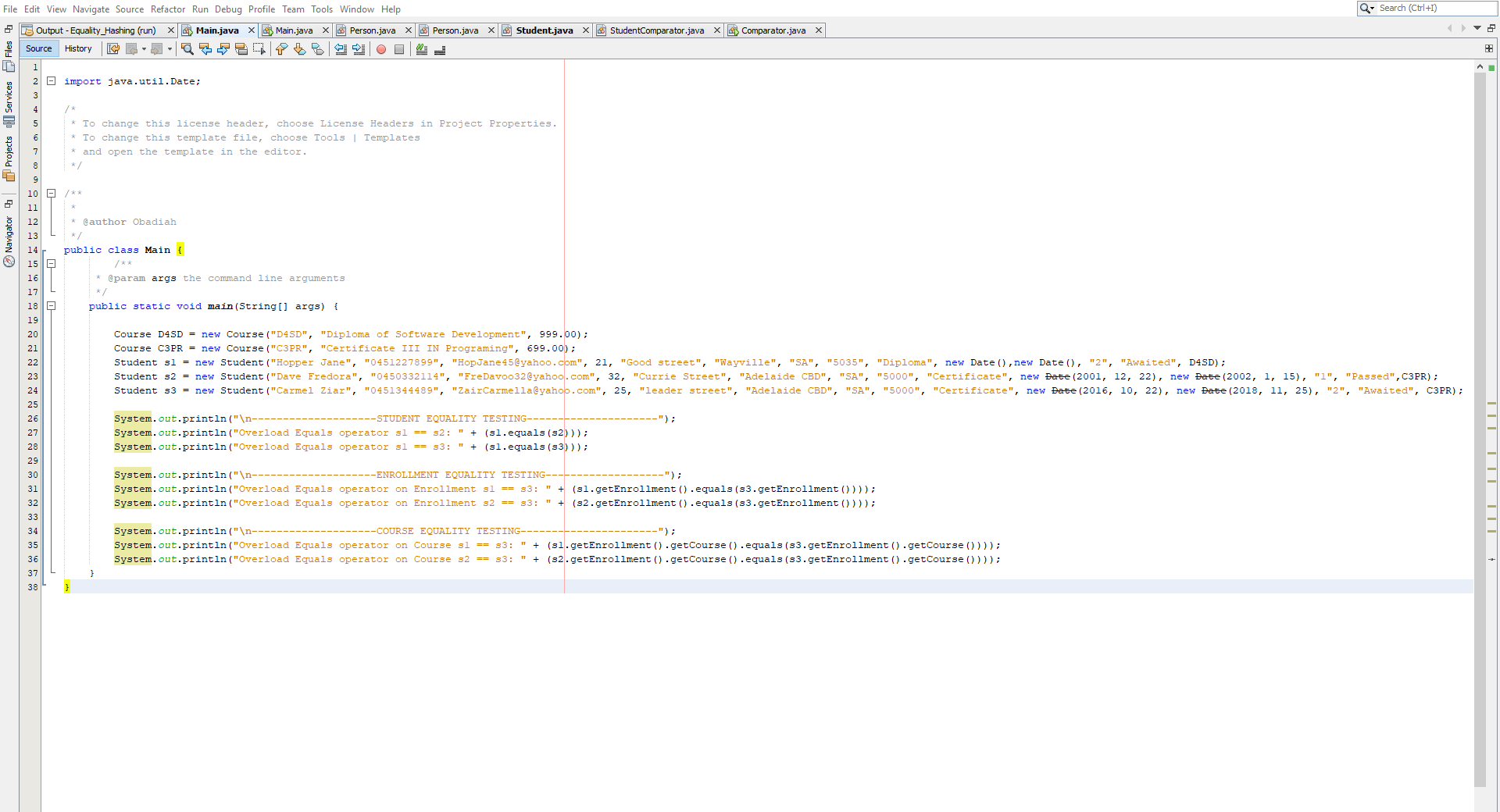
**Test Documentation**

**PART A - Equality and Hashing**

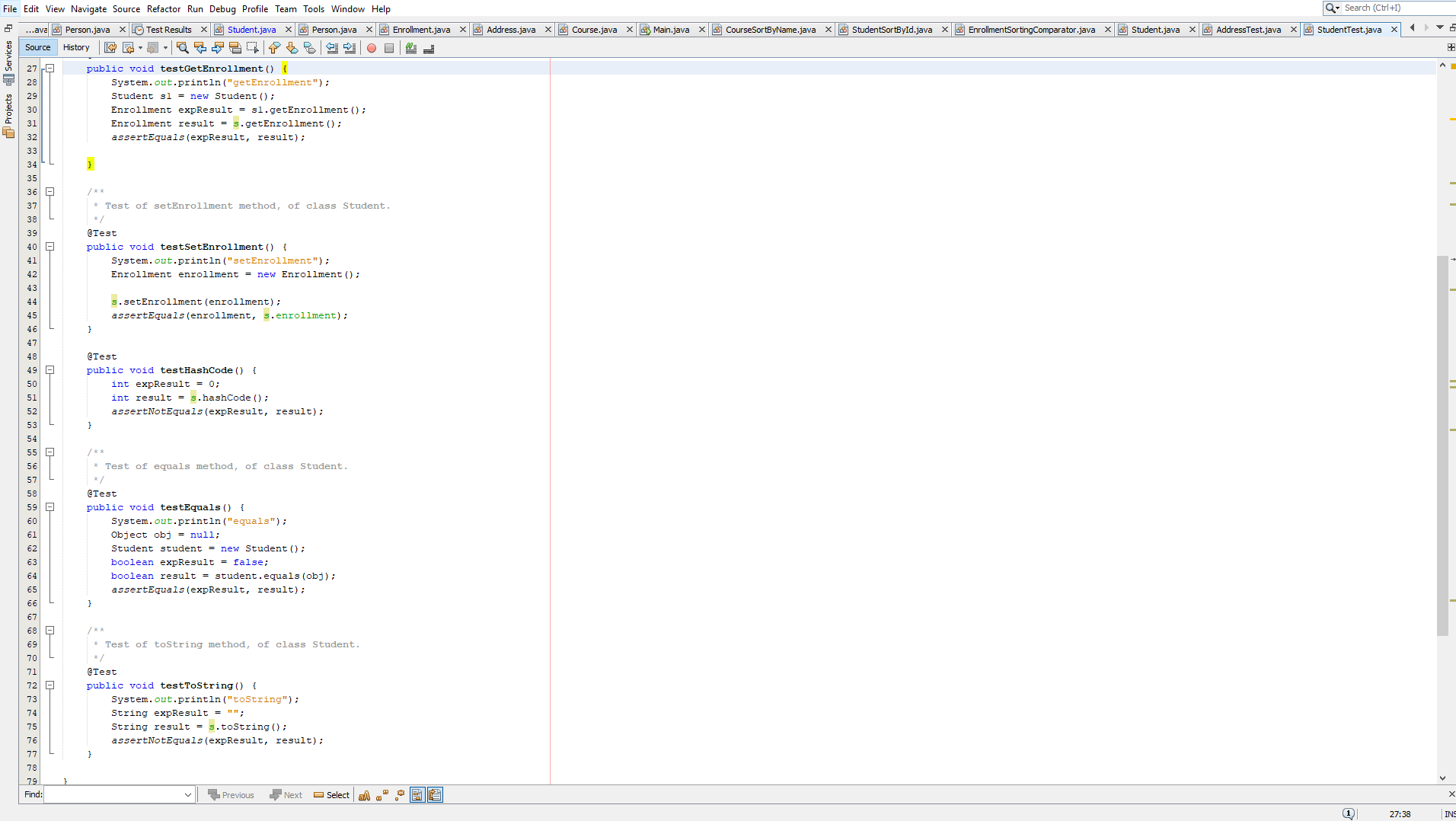
**Testing**



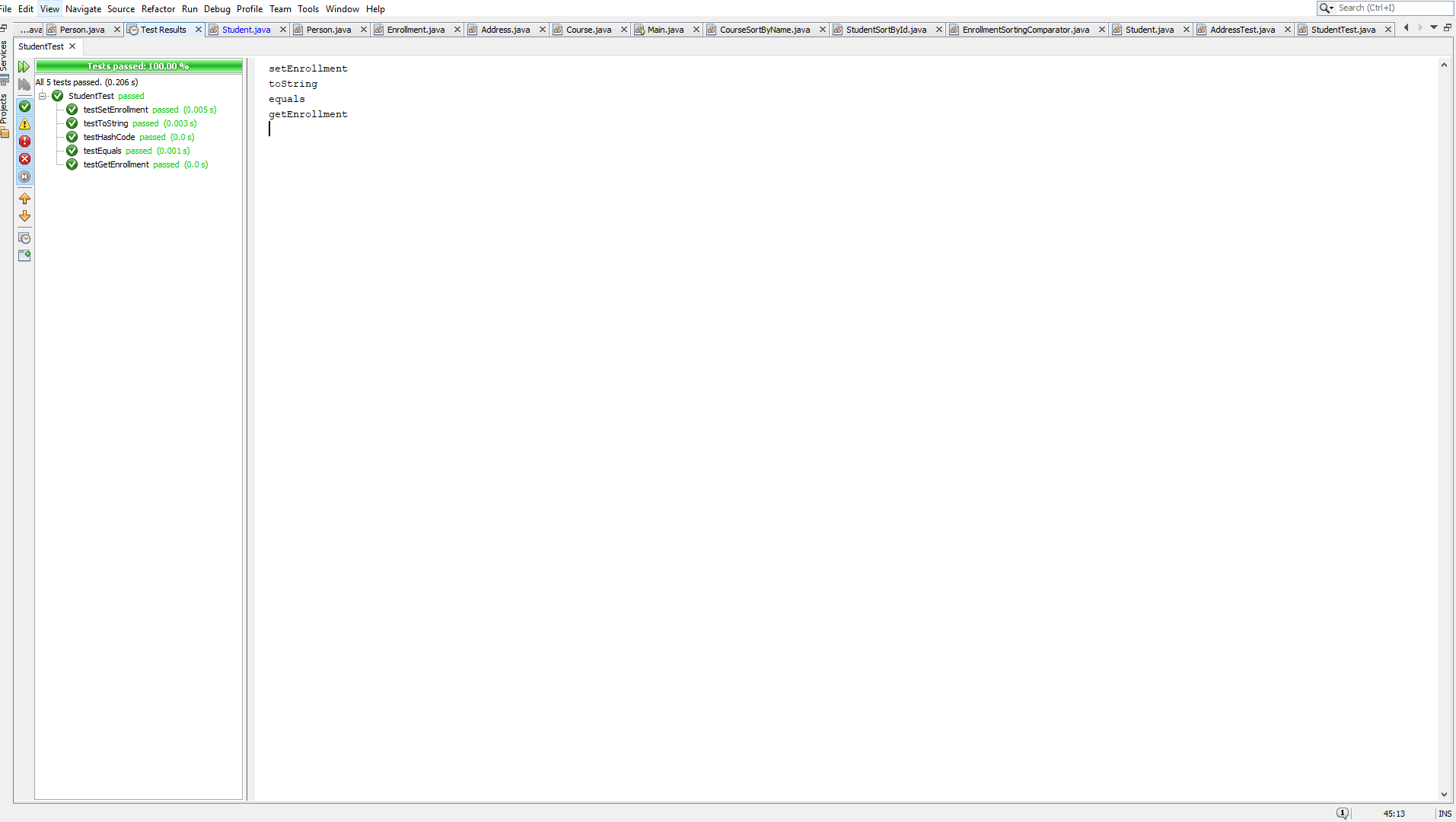
**Results**



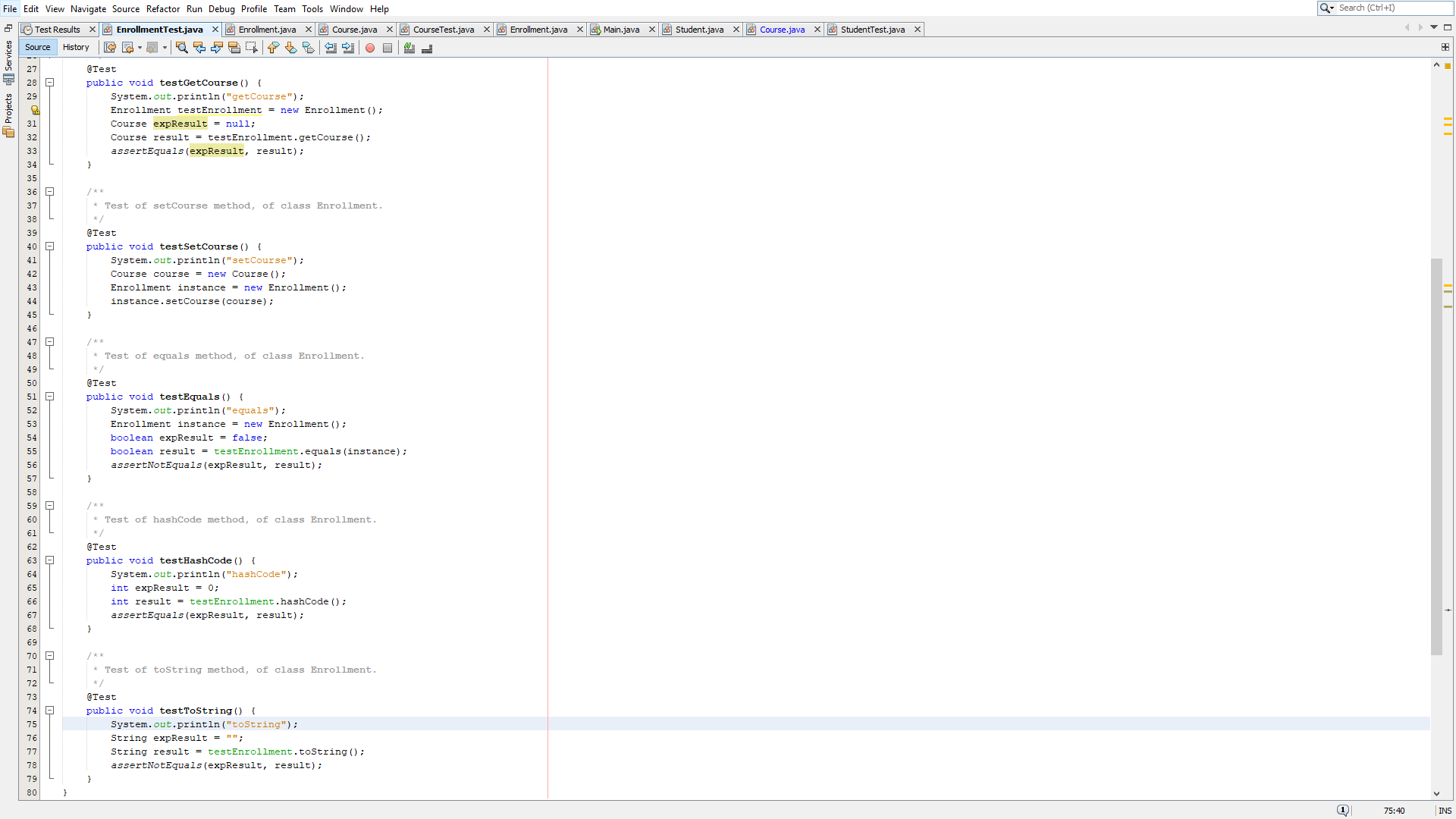
**JUNIT**

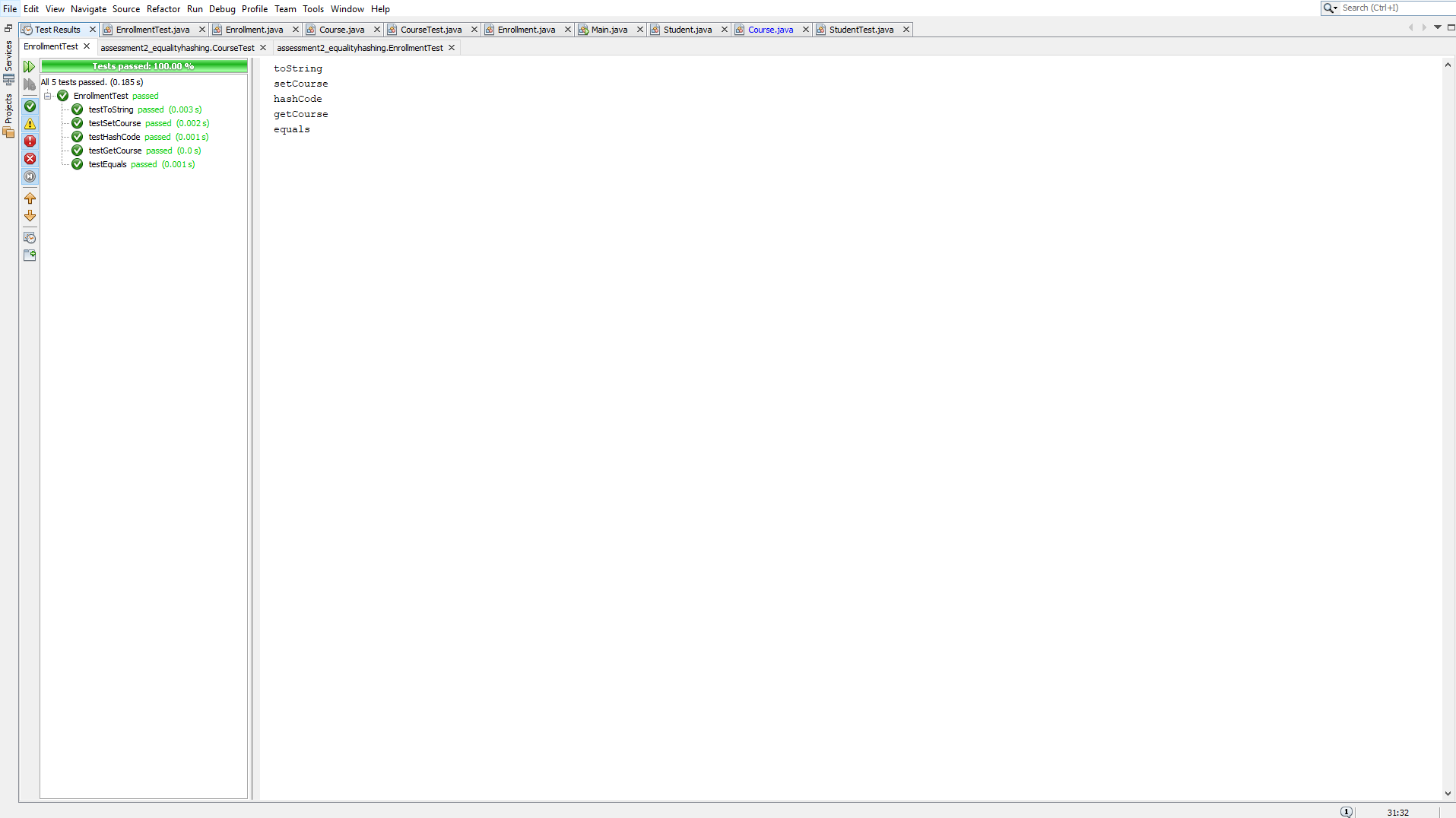
StudentTest

Results

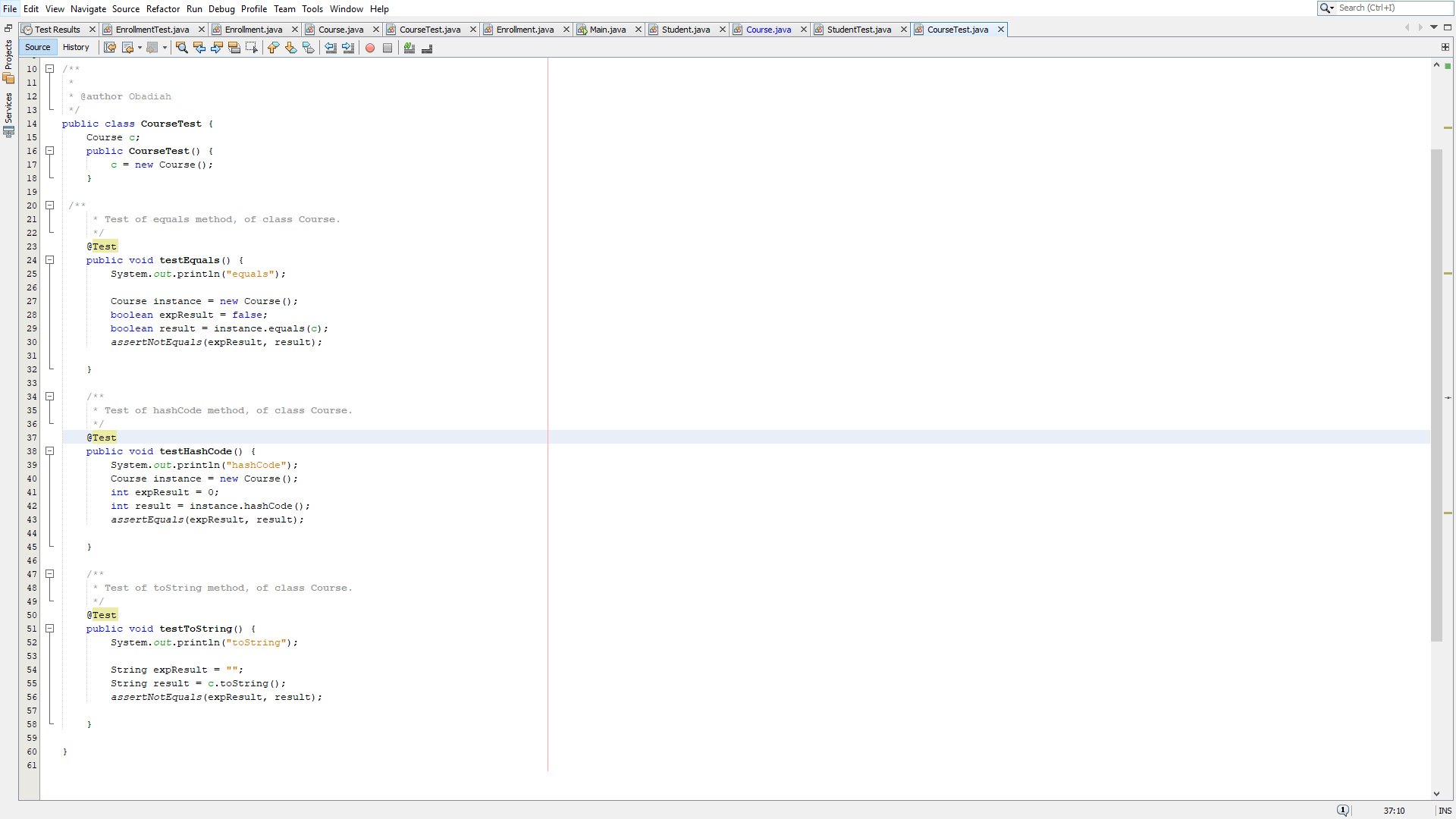


**EnrollmentTest**

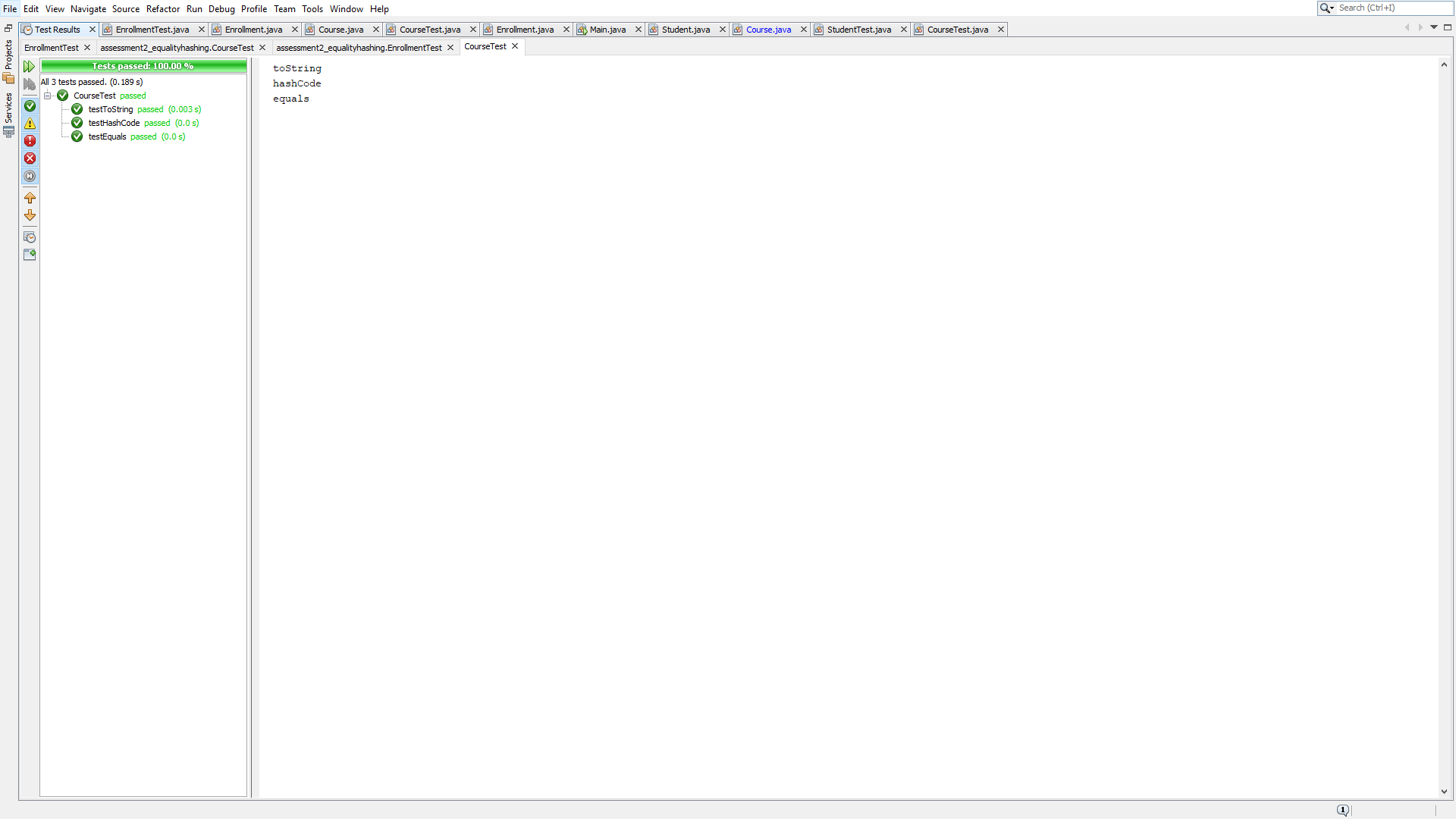


Results

**Course**

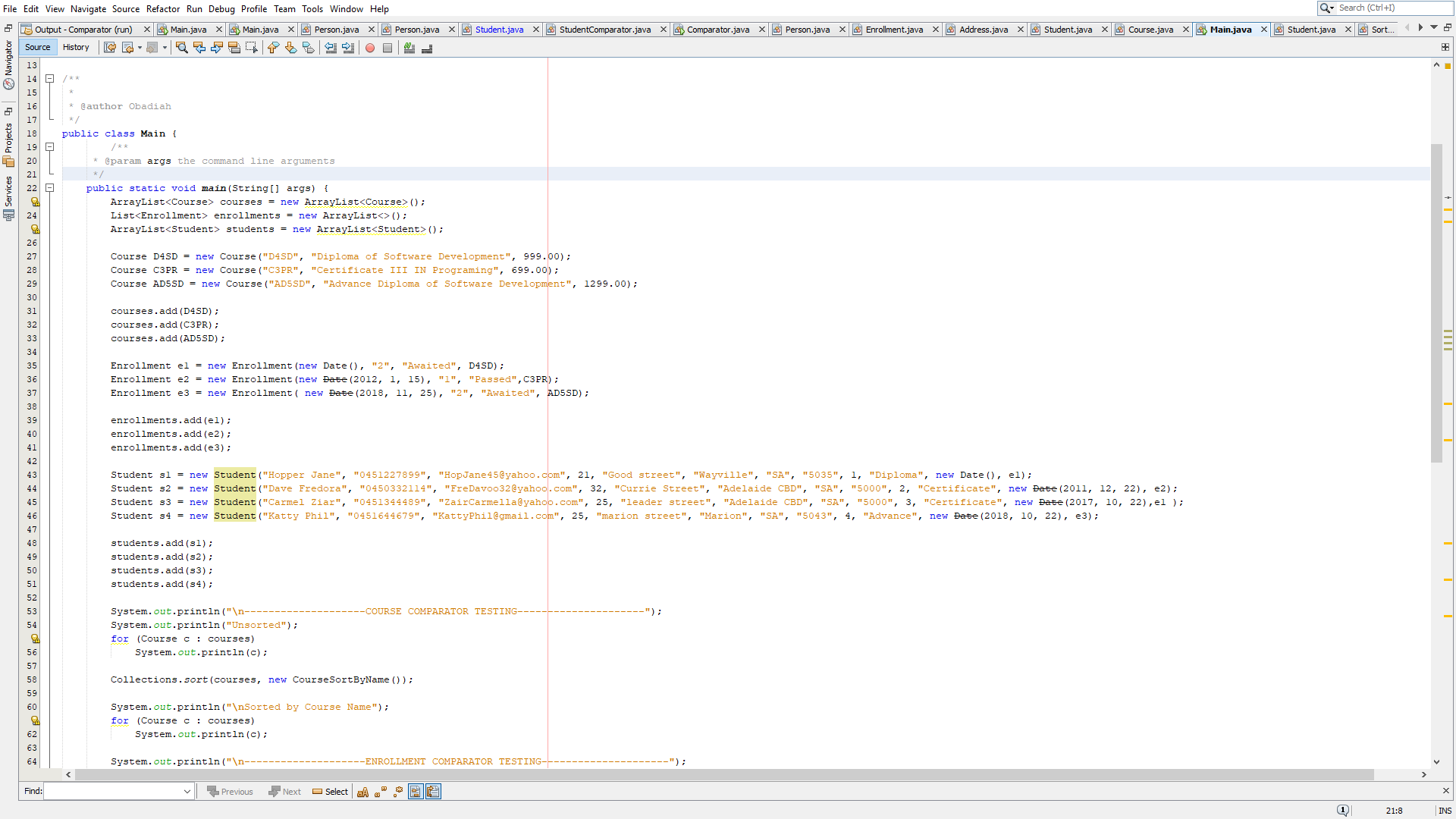


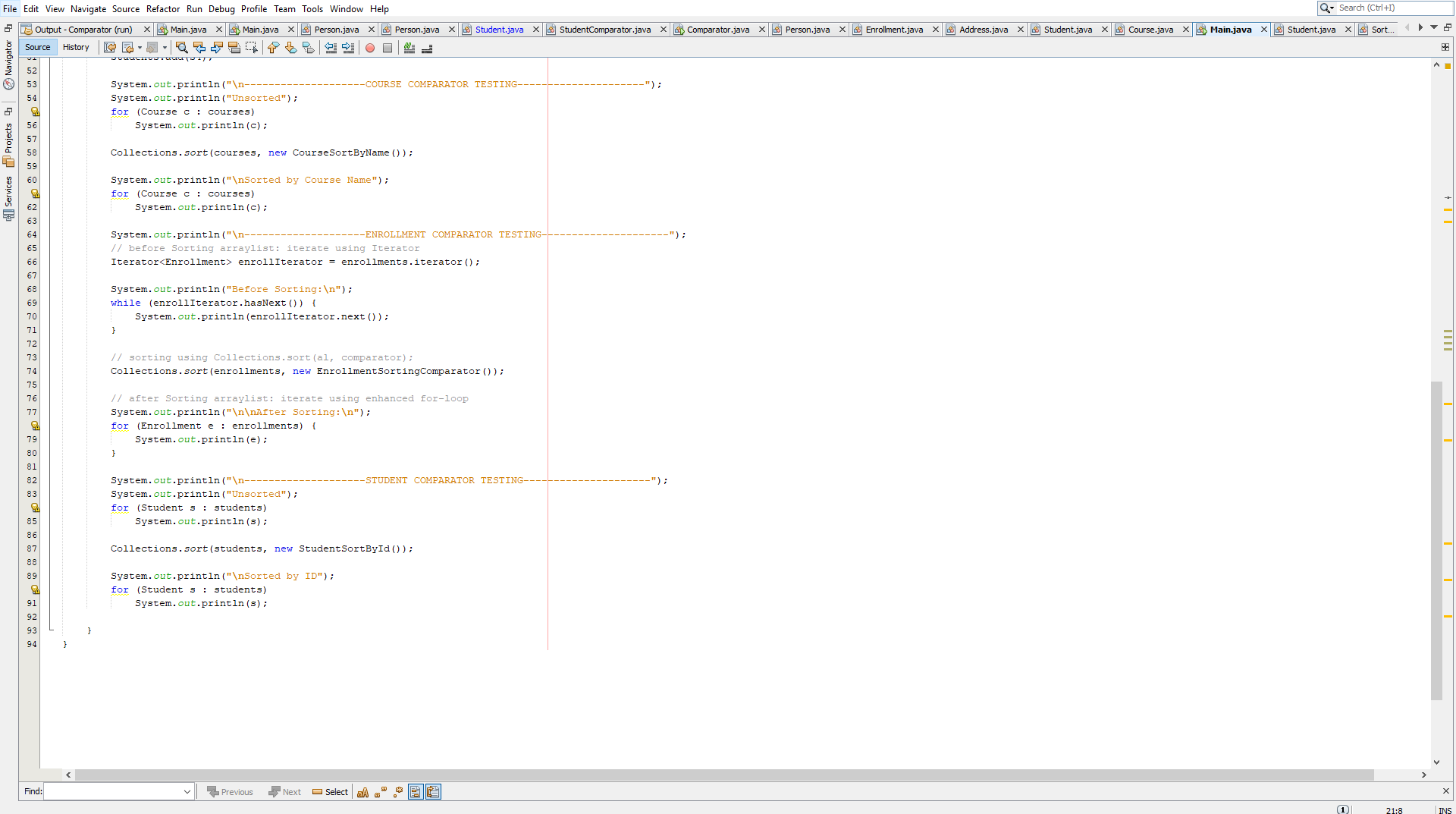
**Results**



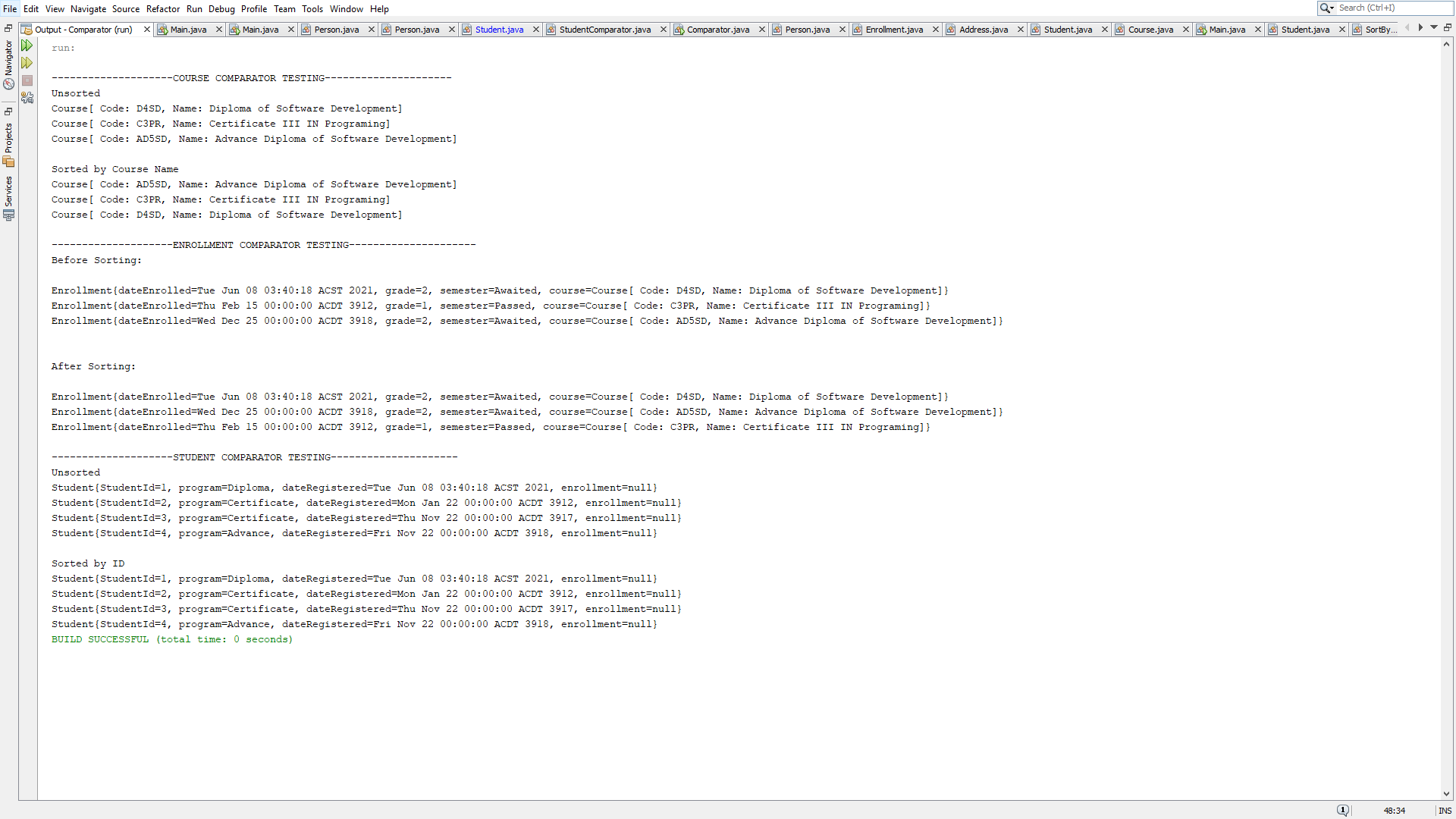
**PART B - Comparator**

**Testing**

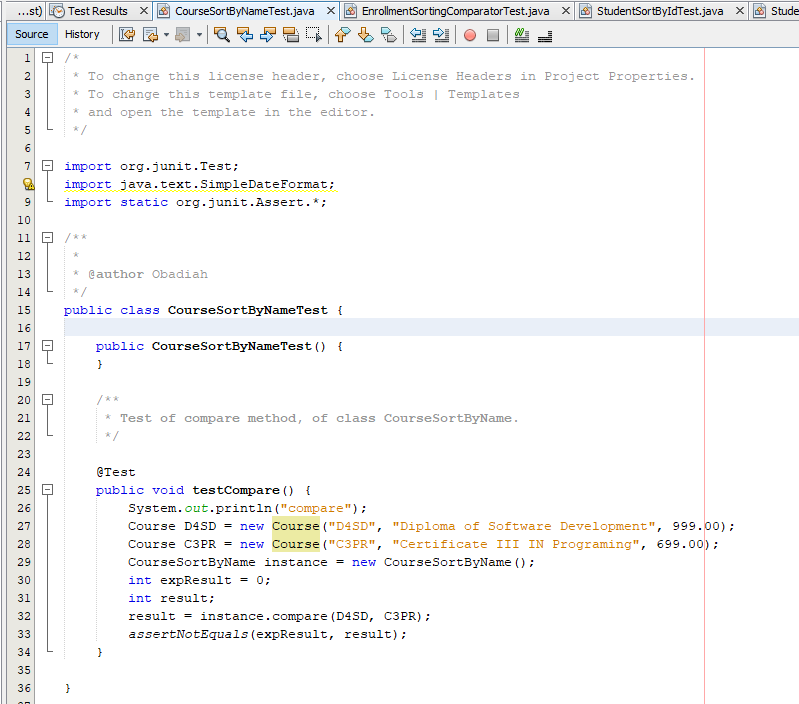


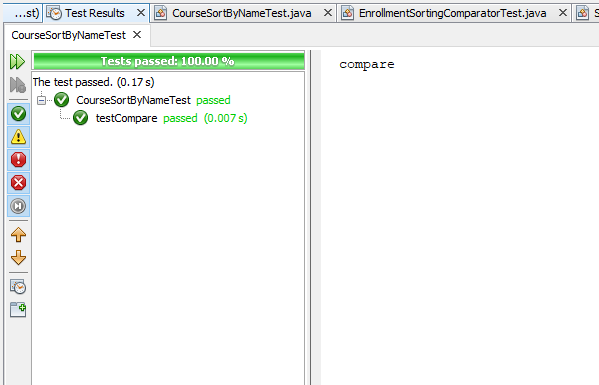
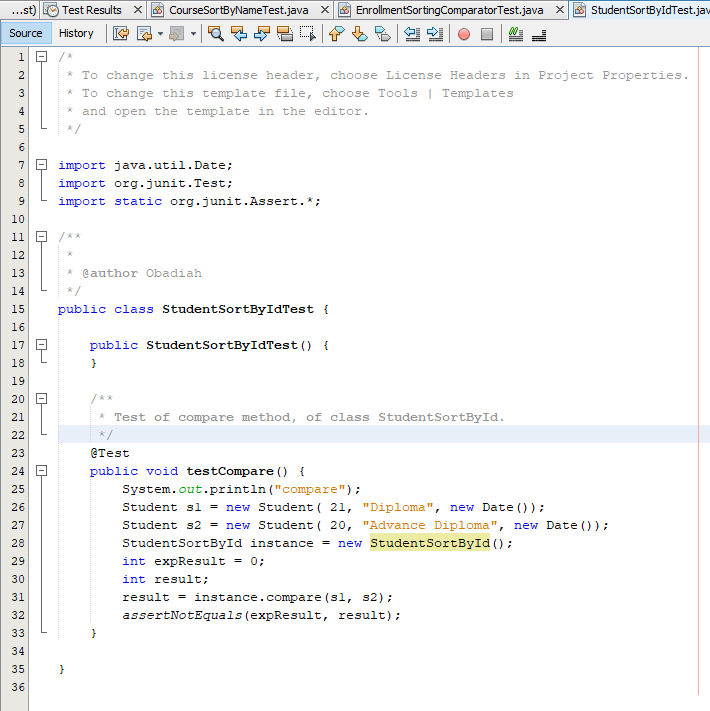


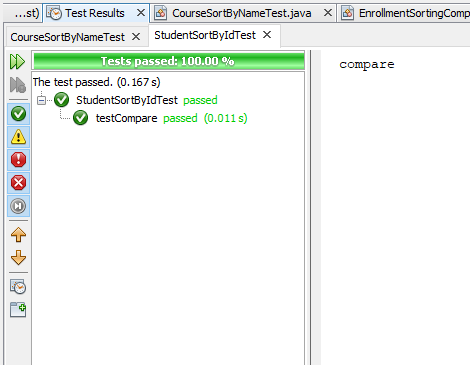
**Results**

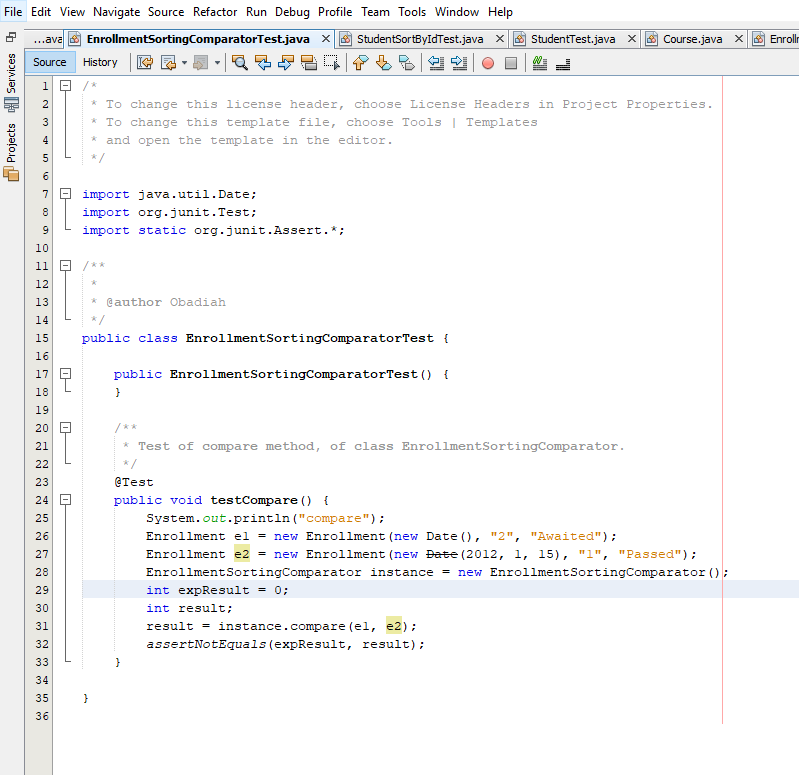


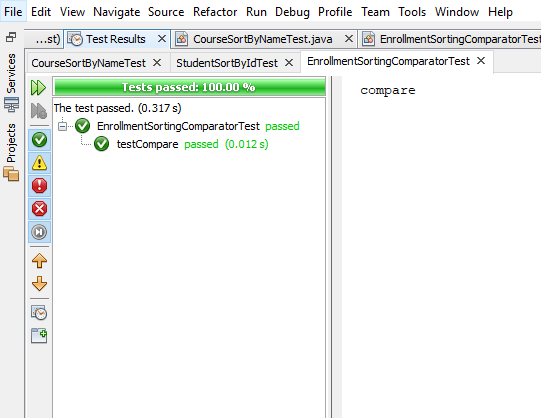
JUNIT





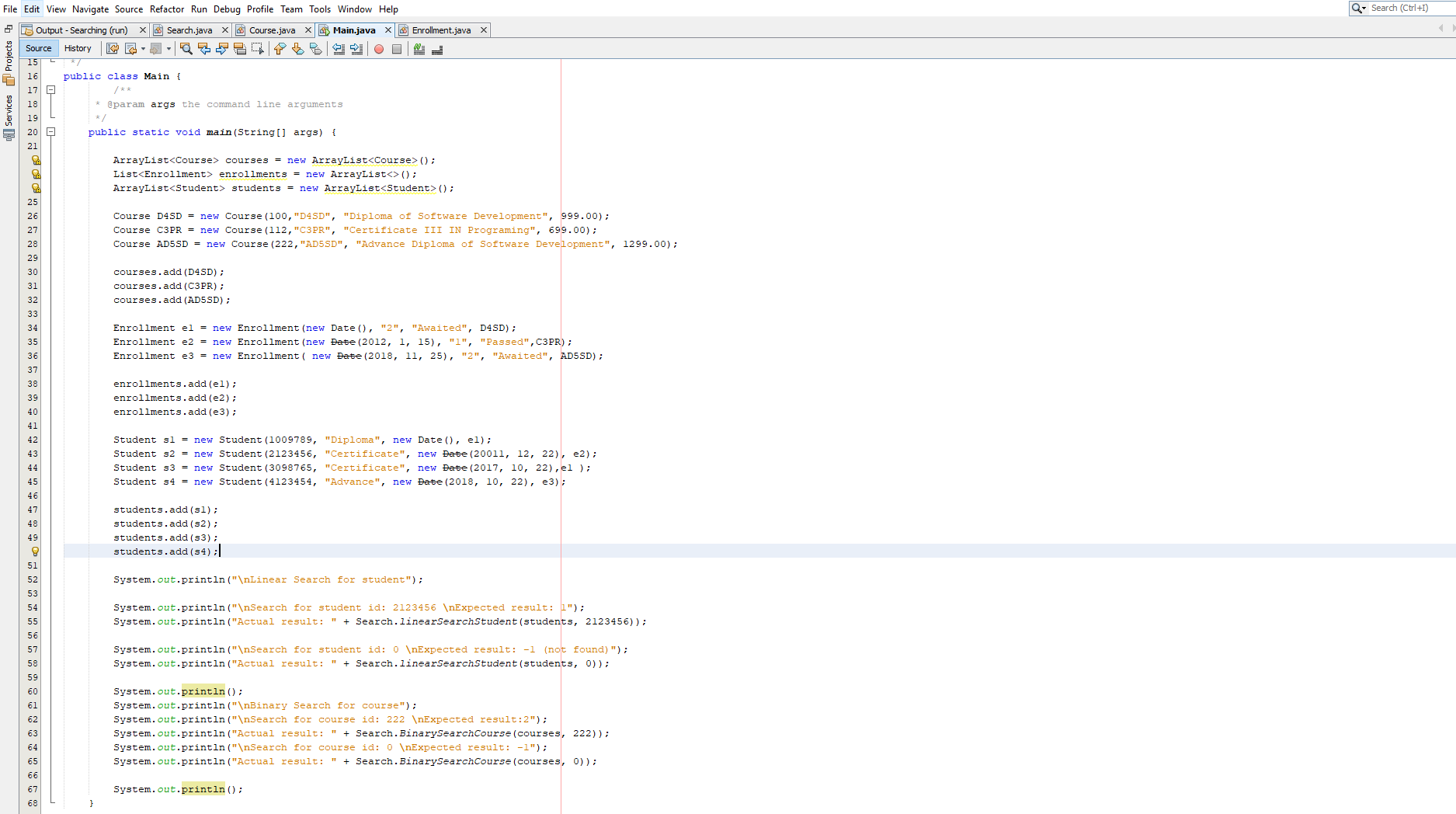


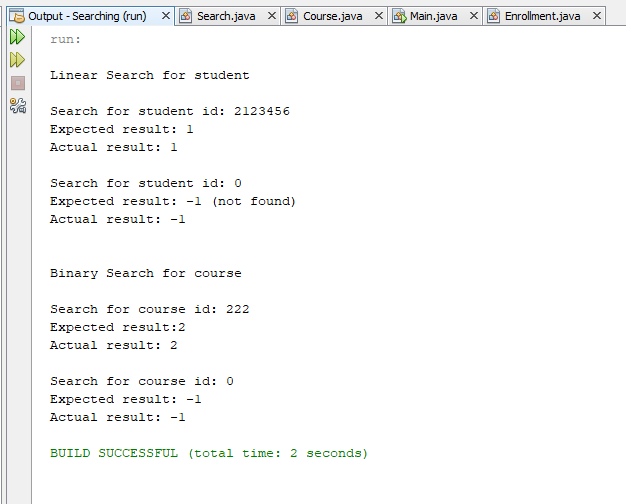


**PART C - SEARCHING**

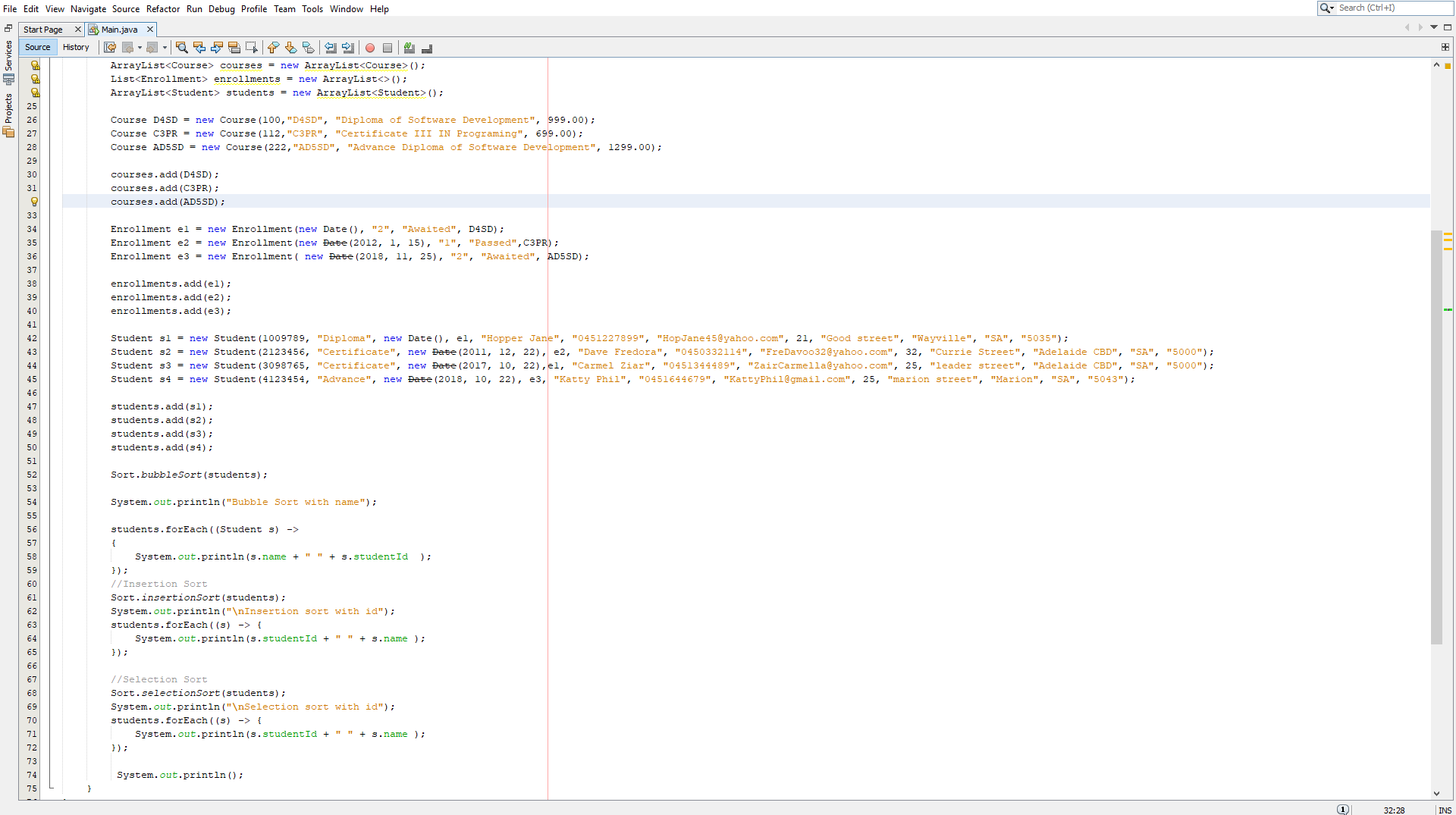
Searching Algorithms:

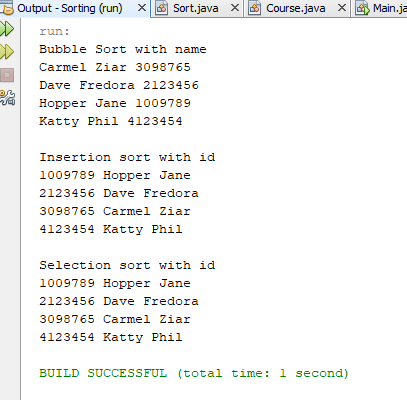
|  |  |  |
| --- | --- | --- |
| Algorithms | Pros | Cons |
| Linear search | Simple  Complexity is o(n)  Not affected by insertion or deletion | Traverses each element  Search time increases with increase in data |
| Binary Search | Search is done in half of the list | Complexity is o(log n)  Input needs to be sorted |
| Exponential Search | Works better than binary search for infinite array | Complexity is o(log n) |





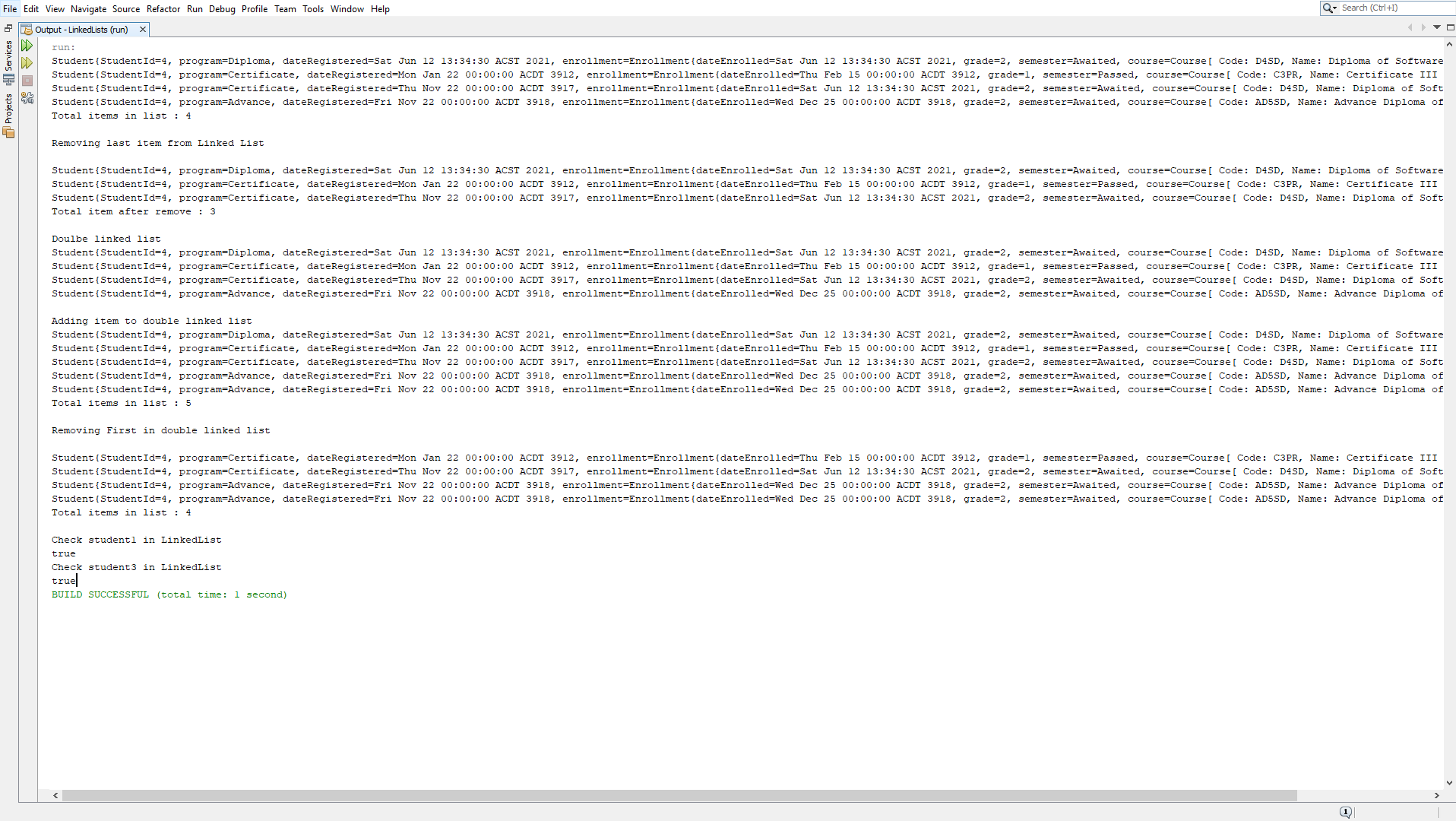
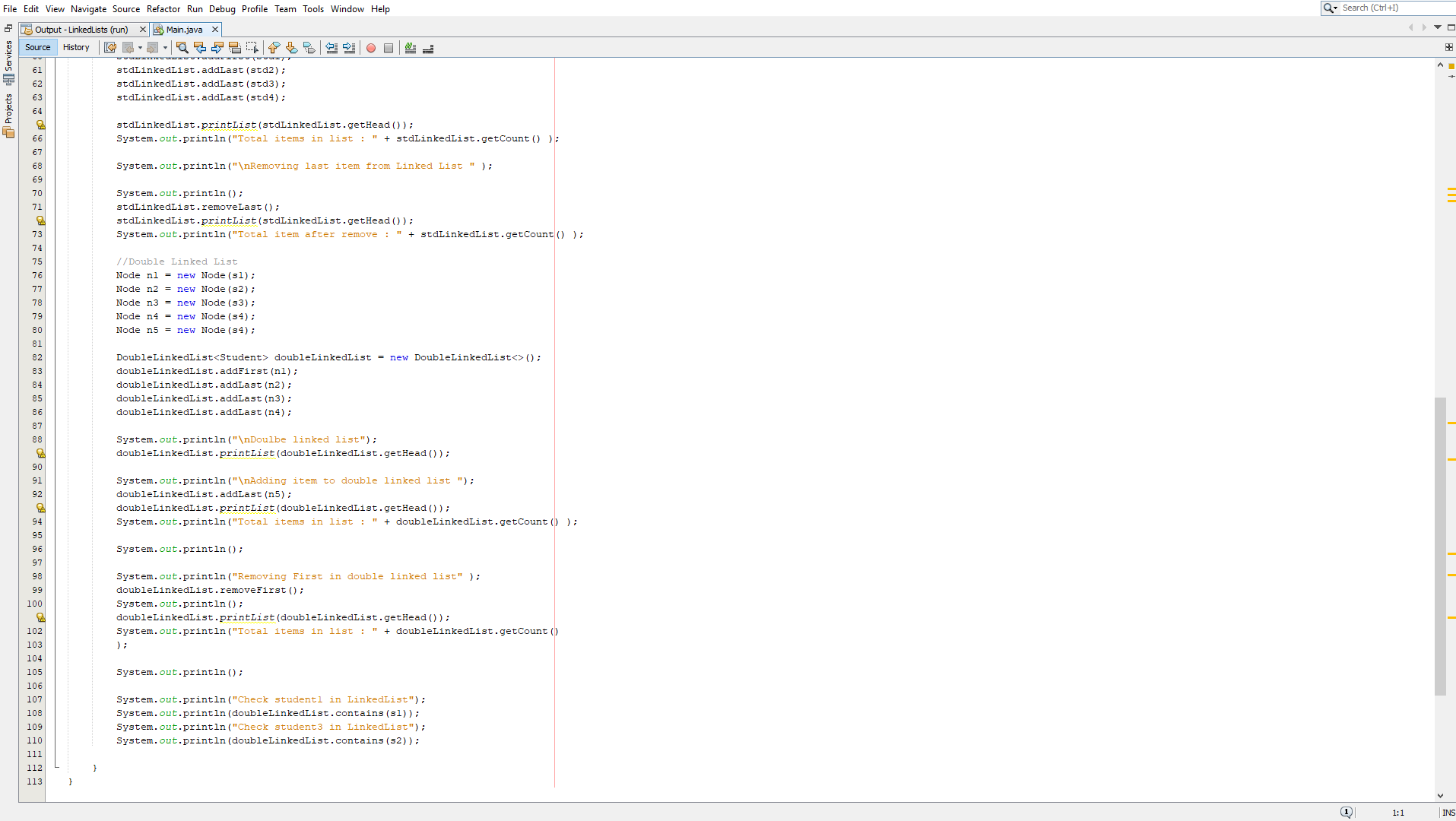
**PART D- Sorting**





**PART E - (Linked Lists)**





**PART F - (Binary Trees)** 