Implementation Design Choice

StudentEnrollment class contains all the methods mentioned in the task.

Student class also contains all the methods mentioned and exception when id is invalid. Extra: constructor, overwritten toString() method.

ResultPublication: This class publishes result being provided a sorting method. $ types of sorting methods are implemented (sort by id, sort by name, sort by cgpa, sort by both name and cgpa). For each sorting method, different classes are used which implement comparator interface. Other sorting methods can be added later without changing ResultPublication class. Thus, the class is close for modification but open for extension.

Exporter: Similar implementation like ResultPublication class. IExport interface is implemented in ExportToCSV and ExportToXML class. Exporter can export to any given file type based on user choice. More export methods can be added without chganging Exporter class. Thus, this class is also open for extension, closed for modification.