

## COMP810 Semester 2 2024

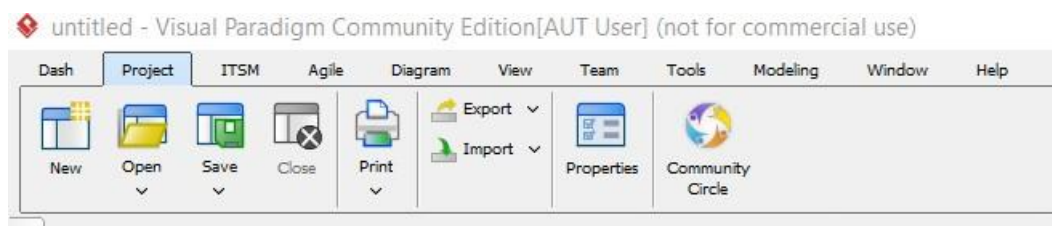
### Quick Introduction to Visual Paradigm

Visual Paradigm CE is the modelling tool that will be used for modelling ER models and diagrams in COMP810. Visual Paradigm Community Edition is available on the SCMS software image. You can also download your own version for free from the following link (current version is 16.3), <https://www.visual-paradigm.com/download/community.jsp>

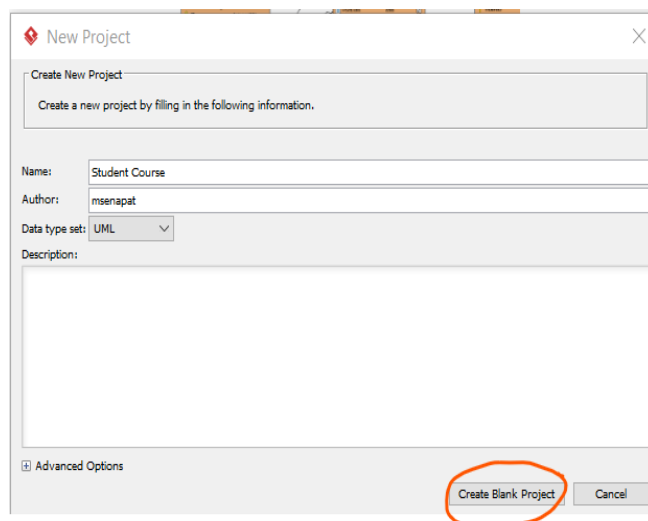
### Getting started: Creating a Conceptual Entity Relationship Diagram (ERD)

Open Visual Paradigm and follow the steps below to create your first ERD.

1. Select '**New**' from the '**Project**' tab to create a new project.



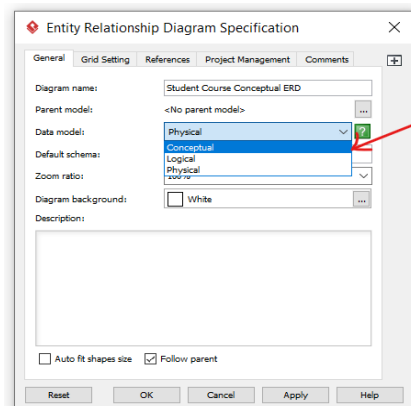
2. In the **New Project** window, enter *Student Course* as project name and click **Create Blank Project**.



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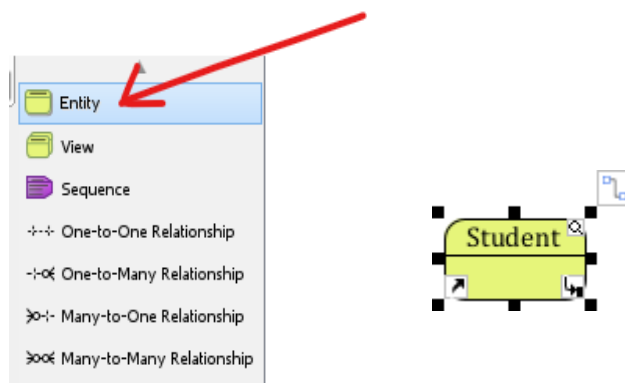
6. From the Data Model drop down list, select Conceptual and click OK.



7. Next create a simple diagram for the following business rules:

- A student enrolls in many courses.
- Each course may have many students.

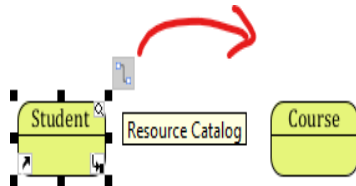
8. We need two entities: Student and Course. Let us create the first entity *Student*. Select **Entity** in diagram toolbar (left-hand side) and click on the diagram to create an entity. Name the entity *Student* and press **Enter** to confirm.



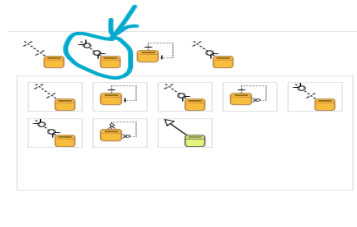
9. Next, create entity *Course*.

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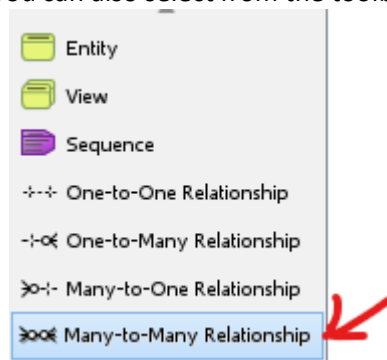
10. A *Student* can enrol in many courses, and a *Course* can have many routes. Therefore, there is a many-to-many relationship between *Student* and *Course*. Place the mouse pointer over the *Student* entity. Drag out the **Resource Catalog** icon at top right.



11. Release the mouse button and select **Many-to-Many Relationship -> Entity** from Resource Catalog as shown below:



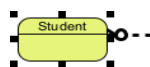
12. you can also select from the toolbar on the left.



13. Link the two entities and name the relationship as *enrols*.

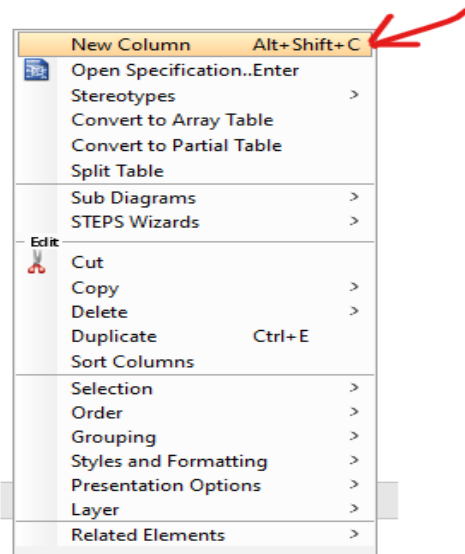


14. Select and right click on the *Student* entity.

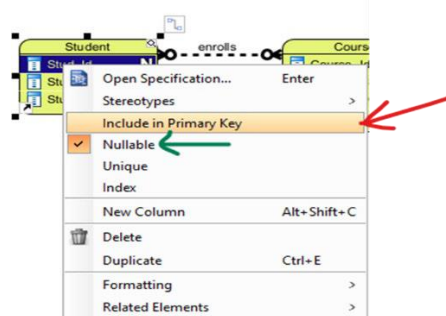


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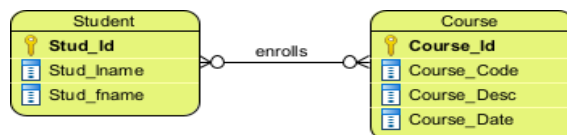
15. Select New Column from the menu as shown below. Rename the column as Stud\_Id.



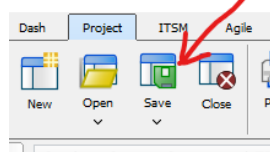
16. Create other columns in both Student (Stud\_Iname, Stud\_fname) and Course (Course\_Code, Course\_Desc, Course\_Date) entities as shown below. For both Stud\_Id and Course\_Id columns, uncheck the *Nullable* option and select *Include in Primary key* option (see below)



17. Your final conceptual ERD should be as shown below.



18. Click on **save** to save your project in your preferred location.



- END OF GUIDELINE --