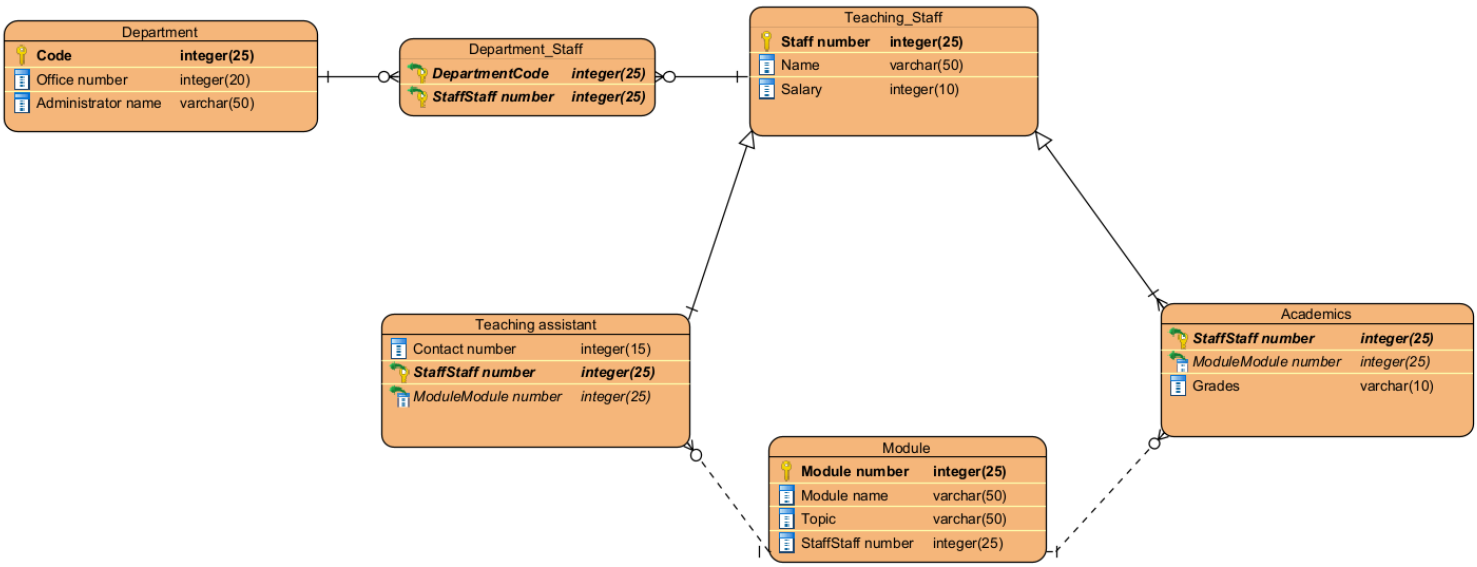
ER Modelling Exercise – SMCSE

The School of Mathematics, Computer Science and Engineering is composed of several departments. Each **department** is identified by a **code**, has a departmental office (**office number**) and a departmental administrator (**administrator name**). Each department has **teaching staffs** that teach modules. Each teaching staff member has a **staff number**, a **name**, and a **salary**. Teaching staff are either *Academics or Teaching Assistants*. Academics have **grades,** while **Teaching Assistants** have contracts (**Contract Number**). Most **Academics** are responsible for one or more **modules** (**module number, module name, topic**), and a module is the responsibility of only one Academic. Teaching Assistants must assist with teaching one or more modules. Module can have several Teaching Assistants. In each department, one of the Academics acts as the Head of Department, and they have a special responsibility allowance.

- Design an **E-R diagram** for the above database. *(entities),* **attributes**
- Derive a corresponding relational scheme from your E-R diagram.



- Department (**Code**, Office Number, Administrator Name)
- Teaching staff (**Staff Number**, Name, Salary, *Department Code*)
- Academics (**Staff Number**, Grade, *Module Number*)
- Teaching Assistant (***Staff Number***, Contract Number)
- Module (**Module Number**, Module Name, Topic, Staff Number)