1.

Employee = Emp\_ID + Emp\_Name + Emp\_Address + {Task\_Allocated} + Specilisation + Dept\_ID + Dept\_Name

The Employee can have multiple tasks meaning the Task\_Allocated column has multiple values for on entity

2.

Employee = Emp\_ID + Emp\_Name + Emp\_Address + Specialization + Dept\_ID + Dept\_Name

Task = Task\_ID + Emp\_ID + Task\_Allocated

I removed the repeating groups and created another table to replace it this converts it to 1NF

3.

Partial Dependency

Is when not prime value is relying on part of a composite key. The Department name (Dept\_Name) relies on the Department ID (Dept\_ID) for its data there for is partial dependency

Transitive dependency

Is when Not prime Values relying on other not prime values. In this DDF the column Specilisation relies on the employee’s name (Emp\_Name) for its value

4.

Employee = Emp\_ID + Emp\_Name + Emp\_Address + Specilisation + Dept\_ID

Department = Dept\_ID + Dept\_Name

Task = Task\_ID + Emp\_ID + Task\_Allocated

Created a new group named Department which include the Dept\_ID and Dept\_name entities this removes the partial dependency. Dept\_ID is still included in the Employee table as a foreign key for referencing their Department.

5.

Employee = Emp\_ID + Emp\_Name + Emp\_Address + Spec\_ID + Dept\_ID

Department = Dept\_ID + Dept\_Name

Task = Task\_ID + Emp\_ID + Task\_Allocated

Specilisation = Spec\_ID + Spec\_Name

I removed the transitive dependency by creating a new table for the specilisation using Spec\_ID as a foreign key in the Employee table and using Spec\_Name as the replacement for the Specilisation.