

**Deliverable 2:** Schemas

**Project Id :** 4

**Client :** OCP's Purchasing & Contract Management Unit

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Schemas:

**Commande** (numCommande: string, service: string, typeDAchatPO: string, uniteOperationelle: string, devise: string, montantCommande: float, montantReceptionne: float, acheteur: string, codeFournisseur: integer, idCDP: integer)

**Fournisseur** (codeFournisseur: integer, nomFournisseur: string, siteFournisseur: string)

**Facture** (identifiantGED: string, numeroDeFacture: string, montantDesFactures: float, intervenant: string, nombreDeJoursAEcheance: integer, cA: string, blocage: string, montantFactureTTCDevise:float,montantMiseADisposition :float,deviseFacture :string, numCommande: string,idE: integer)

**ChefDeProjet** (idCDP: integer, nomCDP :string, idE: integer)

**Entite** (idE :integer, nomEntite: string)

**FDS :**

numCommande -> numCommande  ,service, typeDAchatPO, uniteOperationelle, devise, montantCommande, montantReceptionne, acheteur, codeFournisseur, idCDP.

codeFournisseur -> codeFournisseur ,nomFournisseur, siteFournisseur.

identifiantGED -> identifiantGED , numeroDeFacture, montantDesFactures, intervenant, nombreDeJoursAEcheance, cA, blocage, montantFactureTTCDevise, montantMiseADisposition , deviseFacture, numCommande, idE.

idCDP -> idCDP, nomCDP, idE .

idE-> idE, nomEntite.

**BCNF :**

For a relation to be in BCNF, every left hand side attribute of the FD should be a superkey or the FD is already trivial.

In the **Commande** relation, the primary key is **numCommande** , which uniquely determines all other attributes in the relation. Therefore, it is in BCNF.

In the **Fournisseur** relation, the primary key is **codeFournisseur**, which uniquely determines both **nomFournisseur** and **siteFournisseur**. Therefore, it is in BCNF.

In the **Facture** relation, the primary key is **identifiantGED** , which uniquely determines all other attributes in the relation. Therefore, it is in BCNF.

In the **ChefDeProjet** relation, the primary key is **idCDP**, which uniquely determines all other attributes in the relation.Therefore, it is in BCNF.

In the **Entite** relation, the primary key is **idE**, which uniquely determines all other attributes in the relation. Therefore, it is in BCNF.

Overall, the schemas are already in BCNF.