

**Deliverable 2:** Functional dependencies.

**Project Id :** 4

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

**Supervised by :** PR Karima ECHIHABI

**By :** ABERCHA Zineb

BOUDHAINE Ilyas

KEMMOUNE Anass

MOUIMI Oumaima

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.

Minimal cover set:

**Minimal cover:**

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

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

idCDP -> nomCDP , idCDP -> idE .

idE -> nomEntite.

}.

**Explanation:**

In **Commande**, numCommande is the only candidate key and determines all non-key attributes. The functional dependency codeFournisseur -> { nomFournisseur, siteFournisseur } ensures that each codeFournisseur value is associated with a unique pair of nomFournisseur and siteFournisseur values.

In **Fournisseur**, codeFournisseur is the only candidate key and determines all attributes.

In **Facture**, identifiantGED is the only candidate key and determines all non-key attributes. The foreign key numCommande is also included to enforce referential integrity. The functional dependency idE -> nomEntite ensures that each idE value is associated with a unique nomEntite value.

In **ChefDeProjet**, idCDP is the only candidate key and determines all non-key attributes.

In **Entite**, idE is the only candidate key and does not determine all non-key attributes.