

## Création des 6 CRUDS MYSQL :

```
CREATE TABLE TypeServeurs (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    type VARCHAR(100) NOT NULL,  
    description_serveurs TEXT NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE Serveurs (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    nom_serveurs VARCHAR(100) NOT NULL DEFAULT 'serveur_test',  
    type_serveur_id INT NOT NULL,  
    nombre_processeur_serveurs INT NOT NULL DEFAULT 100,  
    capacite_memoire_serveurs INT NOT NULL DEFAULT 100,  
    capacite_stockage_serveurs INT NOT NULL DEFAULT 100,  
    FOREIGN KEY (type_serveur_id) REFERENCES TypeServeurs(id) ON DELETE  
    CASCADE  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE Services (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    nom_services VARCHAR(100) NOT NULL,  
    date_lancement DATE NOT NULL,  
    espace_memoire_utilise INT NOT NULL,  
    memoire_vive_necessaire INT NOT NULL,  
    serveur_lancement_id INT NOT NULL,  
    FOREIGN KEY (serveur_lancement_id) REFERENCES Serveurs(id) ON DELETE  
    CASCADE  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE Utilisateurs (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    nom_utilisateurs VARCHAR(100) NOT NULL,  
    prenom_utilisateurs VARCHAR(100) NOT NULL,  
    email_utilisateurs VARCHAR(254) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE Applications (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    nom_applications VARCHAR(100) NOT NULL,  
    logo_applications VARCHAR(100), -- Chemin du fichier image, nullable  
    utilisateur_applications_id INT NOT NULL,  
    memoire_utilisee INT NOT NULL DEFAULT 0,  
    cpu_utilise INT NOT NULL DEFAULT 1,  
    FOREIGN KEY (utilisateur_applications_id) REFERENCES Utilisateurs(id) ON  
    DELETE CASCADE  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
CREATE TABLE UsageRessource (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    applications_id INT NOT NULL,  
    services_id INT NOT NULL,  
    type_ressource VARCHAR(50) NOT NULL,  
    FOREIGN KEY (applications_id) REFERENCES Applications(id) ON DELETE  
    CASCADE,  
    FOREIGN KEY (services_id) REFERENCES Services(id) ON DELETE CASCADE  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```