**GTA Landscaping: User View 1**

Below are shown 2 sample invoices for the services our business sells. (An invoice is the same as a receipt). We write a customer invoice once all services are completed for a customer visit. This invoice will itemize many details including the services provided, the time it took to complete those services, the charge for those services, the total of all service charges.

**View 1:**

**UNF:**

**INVOICE** [**invoice#,** invoice date, work team, customer id, cus\_Lname, cus\_Fname, street, city, zip code, (service code, description, hourly\_charge, work\_hour, equipment used) ]

**1NF:**

**INVOICE** [**invoice#, service code** ,invoice date, work team, customer id, cus\_Lname, cus\_Fname, street, city, zip code, description, hourly\_charge, work\_hour, equipment used ]

**2NF:**

**INVOICE** [**invoice#**, invoice date,  work team, customer id, cus\_Lname, cus\_Fname, street, city, zip code]

**SERVICE** [**service code**, description, hourly charge]

**INVOICESERVICE** [**invoice#(FK1),servicecode(FK2),** work\_hour, equipment used]

**3NF:**

**INVOICE** [**invoice#**, invoice date, work team, customer id(FK)]

**CUSTOMER** [**CustomerID,** cus\_Lname, cus\_Fname,zip code (FK)]

**ZIPCODE** [**Zipcode**, street, city]

**SERVICE** [**ServiceCode**, description, hourly charge]

**INVOICESERVICE** [**invoice#(FK1),servicecode(FK2),** work\_hour]

**EQUIPMENT [EquipmentID**, EquipmentDes]

**EQUIPMENTUSED[invoice#(FK1), EquipmentID(FK2)**]

**View 2:**

**UNF:**

**TEAM** [**team id,** Team\_description, (position, em\_Fname, em\_Lname, employee code, OHIP, home phone, start date, (skills))]

**1NF:**

**TEAM** [**team id, employee code, skills**, Team\_description, position, em\_Fname, em\_Lname, OHIP, home phone, start date]

**2NF:**

**TEAM** [**team id,,** Team\_description]

**EMPLOYEE** [**employee code,** em\_Fname, em\_Lname,  position, OHIP, home phone, start date,Team\_Id(FK)]

**EMPLOYEE SKILL** [**employee code(FK1), skills(FK2)**]

**3NF:**

**TEAM** [**team id,,** Team\_description]

**EMPLOYEE** [**employee code,** em\_Fname, em\_Lname, *position\_id(FK),* OHIP, home phone, start date,*Team\_Id(FK)]*

**EMPLOYEE SKILL** [**employee code(FK1), skill\_ID(FK2)**]

**POSITION**[**Position\_id,**Position)

**SKILL**[**Skill\_Id**,Skills]

**View 3:**

**UNF:**

**PRODUCT**[**InvNum**,InvDate,SRName, SRid,CustNum,ProdClass(ProdId,ProdName,Charge,Qty)]

**1NF:**

**PRODUCT**[**InvNum*,*ProdId**,InvDate,SRName,SRid,CustNum,ProdClass,ProdName,Charge,Qt]

**2NF:**

**INVOICE [InvNum*,*** InvDate,SRName,SRid,CustNum]

**PRODUCT**[**ProdId,** ,ProdName, ProdClass]

**INVOICESELL**[**InvNum(FK1), ProdId(FK2),** Charge,Qty]

**3NF:**

**INVOICE [InvNum*,*** InvDate,*SRid(FK1),CustNum(FK2)*]

**PRODUCT**[**ProdId,** ,ProdName, ProdClass]

**INVOICESELL**[**InvNum(FK1), ProdId(FK2),**,Qty]

**SALESREP**[**SRid**, SRName]

**CUSTOMER[CustNum**,CustName]

**PRODUCTCLASS**[PodclassID,ProdClass]

**View 4:**

**UNF:**

**Product Report** [**ClassCode,**ClassDescr(ProdId,ProdDescr,Cost,Markup)]

**1NF:**

**Product Report** [**ClassCode,** **ProdId** ,ClassDescr,ProdDescr,Cost,Markup]

**2NF:**

**ProductClass**[**ClassCode**, ClassDescr]

**Product**[**ProdId,** ProdDescr,,Cost,Markup**,***ClassCode(FK)*]

**3NF:**

**ProductClass**[**ClassCode**, ClassDescr]

**Product**[**ProdId,** ProdDescr,,Cost,Markup**,***ClassCode(FK)*]

**View 5:**

**UNF:**

**INVENTORY** [**AisleNum,**Supplier(ProdId,ProdDescr,Inventory)]

**1NF:**

**INVENTORY** [**AisleNum, ProdId** Supplier, ProdDescr,Inventory]

**2NF:**

**INVENTORY** [**AisleNum,** Supplier]

**PRODUCT[ProdId,** ProdDescr,Inventory]

**3NF:**

**AISLE**[**AisleNum**,AisleDescr]

**SUPPLIER[SupplierId**,SupplierName]

**PRODUCT**[**ProdId,** ProdDescr,Inventory*AisleNum(FK1), SupplierId(FK2)*]