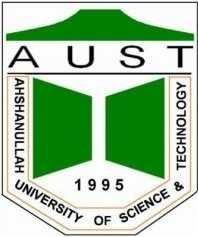
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| --- |
| ***Ahsanullah University of Science & Technology***  Department of Computer Science & Engineering FALL 2019 |
| Project Name  PC DIAGNOSTIC CENTER |
| Database Lab(CSE 3104) |



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| Submitted By: | |
| KAZI SHABAB MAHFUZ | 17.01.04.141 |

# SANAULLAH SAEID 17.01.04.076

TANVIR AHMED SHAON 17.02.04.007

**Reason of Selection Project**

We realized the necessity of organized data that is required in repair shops (Small businesses). So we came up with an idea where a software can assist a manager of a repair shop by providing them required software facilities to track their working repair easily and in an organized way. This software will store the repair related customer, mechanic in charge of it , cost , product description and all type of data that can be handy to expel any confusion.

Customers

Small Electronic Shop Owners, Gadget Repair Shop Owners

**Risk Analysis of Project**

There are few risks and limitations of this project. There should be uninterrupted power supply present. And there should also be a proper data backup system otherwise there might be a risk of losing data. The shop owners and their managers should be provided with working computers and they should have general computer skills.

**Conclusion**

We are trying to design an application that will be of benefit small repair shop owners by keeping their data organized and secure. In Future the UI will be more User friendly and data backup system will be introduced. We will also add new features and will allow more data. The design of the application will be kept simple so that it will be easy to use. In short, this application will be beneficial for small repair shop owners.

**Entity:**

REPAIR\_TAG

CUSTOMER

PRODUCT

DESCRIPTIN

MECHANIC

SERVICES

PARTS

**Relationship:**

Given by

Assigned to

Give

Distinct by

Provides

**Attributes:**

REPAIRTAG– Id, Serviceid, Customerid, Mechanicid, RStatus

CUSTOMER – Id, FName, LName, Productid, Sub\_date, Contact\_no

PRODUCT - Id,Type,Desc\_tag

DESCRIPTION - Id,Pcd\_sl,Lcd\_sl,Keyboard\_sl, Ram\_sl,Hardisk\_sl,Battery\_sl

MECHANIC - Id, FName, LName, Productid, Contact\_no

SERVICES - ID,Partsid,Type,Est.Amount

PARTS - ID,Type,Catalog

Primary key:

REPAIRTAG– Id

CUSTOMER – Id

PRODUCT - Id

DESCRIPTION - Id

MECHANIC - Id

SERVICES - Id

PARTS -

Foreign key:

REPAIRTAG– Serviceid, Cistomerid, Mechanicid

CUSTOMER – Productid

PRODUCT - Desc\_tag

SERVICES - Partsid

REPAIR Table:

This table is for tracing. It keeps tracks of repair.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Id | Serviceid | Customerid | Mechanicid | RStatus |
|  |  |  |  |  |

CUSTOMER Table:

This table is keeps all data of customer here Productid is a Foreign key that refers to table PRODUCT.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Id | FName | LName | Productid | Sub\_date | Contact\_no |
|  |  |  |  |  |  |

PRODUCT Table:

This table is keeps all datatypes of products that are available to repair.

|  |  |  |
| --- | --- | --- |
| Id | Type | Desc\_tag |
|  |  |  |

DESCRIPTION Table:

This table is keeps all product details and their serial number so that parts don’t interchange .

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Id | Pcd\_sl | Lcd\_sl | Keyboard\_sl | Ram\_sl | Hardisk\_sl | Battery\_sl |
|  |  |  |  |  |  |  |

MECHANIC Table:

This table is keeps all data of mechanic here.

|  |  |  |  |
| --- | --- | --- | --- |
| Id | FName | LName | Contact\_no |
|  |  |  |  |

SERVICES Table:

This table is keeps all services available by the repair shop.

|  |  |  |  |
| --- | --- | --- | --- |
| Id | Partsid | Type | Est.Amount |
|  |  |  |  |

PARTS Table:

This table is keeps all the parts thatb is available to sell.

|  |  |  |
| --- | --- | --- |
| Id | Type | Catalog |
|  |  |  |

Advanced Query used in the Project:

1. SELECT \* FROM CUSTOMER WHERE CONCAT(id,Productid,Fname,Lname,Sub\_date,Contact\_no) LIKE '%"+tf+"%'
2. SELECT \* FROM MECHANIC WHERE CONCAT(id,Fname,Lname,Contact\_no) LIKE '%"+tf+"%'
3. SELECT R.id AS Repairtag,C.FName AS Customer,M.FName AS Mechanic,M.Contact\_no AS 'Mechanic Mobile no.' FROM REPAIR\_TAG R INNER JOIN CUSTOMER C ON (R.Customerid=C.id) INNER JOIN MECHANIC M ON (R.Mechanicid=M.id)
4. SELECT R.id AS Repairtag,C.FName AS Customer,M.FName AS Mechanic,M.Contact\_no AS 'Mechanic Mobile no.' FROM REPAIR\_TAG R INNER JOIN CUSTOMER C ON (R.Customerid=C.id) INNER JOIN MECHANIC M ON (R.Mechanicid=M.id) WHERE C.FName LIKE '%"+tf+"%'
5. SELECT C.FName AS Customer,P.Ptype AS Product\_type,D.\* FROM CUSTOMER C INNER JOIN PRODUCT P ON (C.Productid=P.id) INNER JOIN P\_DESCRIPTION D ON (P.Desc\_tag=D.id)
6. SELECT C.FName AS Customer,P.Ptype AS Product\_type,D.\* FROM CUSTOMER C INNER JOIN PRODUCT P ON (C.Productid=P.id) INNER JOIN P\_DESCRIPTION D ON (P.Desc\_tag=D.id) WHERE C.FName LIKE '%"+tf+"%'
7. SELECT M.FName AS 'Mechanic',R.id AS 'RepairTag',C.FName AS Customer,R.Rstatus FROM REPAIR\_TAG R INNER JOIN CUSTOMER C ON (R.Customerid=C.id) INNER JOIN MECHANIC M ON (R.Mechanicid=M.id)
8. SELECT M.FName AS 'Mechanic',R.id AS 'RepairTag',C.FName AS Customer,R.Rstatus FROM REPAIR\_TAG R INNER JOIN CUSTOMER C ON (R.Customerid=C.id) INNER JOIN MECHANIC M ON (R.Mechanicid=M.id) WHERE M.FName LIKE '%"+tf+"%'
9. SELECT M.FName AS 'Mechanic',R.id AS 'RepairTag',C.FName AS Customer,R.Rstatus FROM REPAIR\_TAG R INNER JOIN CUSTOMER C ON (R.Customerid=C.id) INNER JOIN MECHANIC M ON (R.Mechanicid=M.id)
10. SELECT M.FName AS 'Mechanic',R.id AS 'RepairTag',C.FName AS Customer,R.Rstatus FROM REPAIR\_TAG R INNER JOIN CUSTOMER C ON (R.Customerid=C.id) INNER JOIN MECHANIC M ON (R.Mechanicid=M.id) WHERE C.FName LIKE '%"+tf+"%'

