

```
DROP Table IF EXISTS Repair_Order
```

```
CREATE Table Staff(  
  Staff_Number int(6) primary key,  
  Staff_Name varchar(8),  
  Staff_Sex char(2) Default '男',  
  Staff_Birth Date,  
  Staff_work_Type char(4),  
  Check (Staff_Sex in ('男','女')),  
  Check (Staff_work_Type in ('维修','生产'))  
)
```

```
CREATE Table Mainboard(  
  Mainboard_Number varchar(6) primary key,  
  Mainboard_Cost int(8),  
  Mainboard_Sale_Price int(8)  
)
```

```
CREATE Table SMT_U_Line(  
  U_Line_Number varchar(10) primary key,  
  U_Line_Operation_Status varchar(2)  
)
```

```
CREATE Table Repair_Order(  
  Repair_Order_Number int(4) primary key,  
  Repair_Start_Time DATETIME,  
  Repair_End_Time DATETIME,  
  Staff_Number int(6),  
  U_Line_Number varchar(10),  
  Foreign Key(Staff_Number) references Staff(Staff_Number),  
  Foreign Key(U_Line_Number) references SMT_U_Line(U_Line_Number)  
)
```

```
CREATE Table Dispatch_Order(  
  Dispatch_Order_Number int(8) primary key,  
  Work_Plan_Start_Time DATETIME,  
  Work_Plan_End_Time DATETIME,  
  Work_Real_Start_Time DATETIME,  
  Work_Real_End_Time DATETIME,  
  Work_Real_Sum_Number int,  
  Work_Real_Qualified_Number int,  
  Work_Plan_Number int,  
  Staff_Number int(6),  
  U_Line_Number varchar(10),  
  Mainboard_Number varchar(6),  
  Foreign Key(Staff_Number) references Staff(Staff_Number),  
  Foreign Key(U_Line_Number) references SMT_U_Line(U_Line_Number),  
  Foreign Key(Mainboard_Number) references Mainboard(Mainboard_Number)  
)
```

```
INSERT into SMT_U_Line (U_Line_Number, U_Line_Operation_Status ) values(%s,%s)
```

```
INSERT into Mainboard (Mainboard_Number, Mainboard_Cost, Mainboard_Sale_Price )  
values(%s,%s,%s)
```

```
INSERT into Dispatch_Order (Dispatch_Order_Number, Work_Plan_Start_Time,  
Work_Plan_End_Time, Work_Real_Start_Time, Work_Real_End_Time,  
Work_Real_Sum_Number, Work_Real_Qualified_Number, Work_Plan_Number,  
Staff_Number, U_Line_Number, Mainboard_Number )  
values(%s,%s,%s,%s,%s,%s,%s,%s,%s,%s,%s)
```

```
INSERT into Repair_Order (Repair_Order_Number, Repair_Start_Time,  
Repair_End_Time, Staff_Number, U_Line_Number ) values(%s,%s,%s,%s,%s)
```

```
INSERT into Staff (Staff_Number, Staff_Name, Staff_Sex, Staff_Birth,  
Staff_work_Type ) values(%s,%s,%s,%s,%s)
```

```
CREATE VIEW 维修员工完成维修单(工号, 姓名, 已完成维修次数 )  
AS select Staff.Staff_Number, Staff_Name, count(*)  
From staff ,Repair_Order where (Repair_Order.Staff_Number=Staff.Staff_Number)  
and Staff_Work_Type='维修' and (Not Repair_End_Time='2000-01-01 01:00:00')  
GROUP BY Staff.Staff_Number
```

```
CREATE VIEW 生产员工完成派工单数(工号, 姓名, 已完成派工单数 )  
AS select Staff.Staff_Number, Staff.Staff_Name, count(*)  
From staff,Dispatch_Order where (Dispatch_Order.Staff_Number=Staff.Staff_Number)  
and Staff_Work_Type='生产' and (Not work_Real_End_Time='2000-01-01 01:00:00')  
GROUP BY Staff.Staff_Number
```

```
CREATE VIEW 主板视图(主板型号, 单件成本, 单件售价,总实际产量 ,总合格产量 ,总计划产量,合格率,  
生产完成率,总生产利润)  
AS select Mainboard.Mainboard_Number, Mainboard_Cost, Mainboard_Sale_Price,  
/SUM(Work_Real_Sum_Number)  
SUM(Work_Real_Sum_Number),  
SUM(Work_Real_Qualified_Number),SUM(Work_Plan_Number),CONCAT(TRUNCATE(SUM(work_R  
eal_Qualified_Number)/SUM(Work_Real_Sum_Number) *100,2),'%')  
,CONCAT(TRUNCATE(SUM(Work_Real_Sum_Number)/SUM(Work_Plan_Number) *100,2),'%') ,  
(Mainboard_Sale_Price*SUM(work_Real_Qualified_Number)-  
Mainboard_Cost*SUM(Work_Real_Sum_Number))  
From Mainboard,Dispatch_Order WHERE  
Mainboard.Mainboard_Number=Dispatch_Order.Mainboard_Number GROUP BY  
Mainboard.Mainboard_Number
```

```

CREATE VIEW 正在生产的派工单(派工单编号, 计划开始时间, 计划完成时间,实际开始时间 ,生产主板,
生产进度 ,生产员工,生产线,生产线的状态)
AS select Dispatch_Order_Number, Work_Plan_Start_Time,
Work_Plan_End_Time,Work_Real_Start_Time,Mainboard_Number
,CONCAT(TRUNCATE(SUM(Work_Real_Sum_Number)/SUM(Work_Plan_Number)
*100,2), '%'),Staff_Name,Dispatch_Order.U_Line_Number,U_Line_Operation_Status
From Dispatch_Order,Staff,SMT_U_Line WHERE
(Dispatch_Order.Staff_Number=Staff.Staff_Number) and
(Dispatch_Order.U_Line_Number=SMT_U_Line.U_Line_Number) and
(Work_Real_End_Time='2000-01-01 01:00:00')
GROUP BY Dispatch_Order_Number
Order By U_Line_Operation_Status

```

```

CREATE VIEW 正在维修的维修单(维修单编号, 维修开始时间 ,维修员工)
AS select Repair_Order_Number,Repair_Start_Time,Staff_Name
From Repair_Order,Staff WHERE (Repair_Order.Staff_Number=Staff.Staff_Number) and
(Repair_End_Time='2000-01-01 01:00:00')
GROUP BY Repair_Order_Number

```

```

CREATE VIEW 生产线生产视图(产线编号, 已完成生产次数 , 合格率,生产完成率)
AS select SMT_U_Line.U_Line_Number,count(case when
Dispatch_Order.Work_Plan_Start_Time then 1 end
),CONCAT(TRUNCATE(SUM(Work_Real_Qualified_Number)/SUM(Work_Real_Sum_Number)
*100,2), '%') ,CONCAT(TRUNCATE(SUM(Work_Real_Sum_Number)/SUM(Work_Plan_Number)
*100,2), '%')
From SMT_U_Line,Dispatch_Order WHERE
(SMT_U_Line.U_Line_Number=Dispatch_Order.U_Line_Number) and (NOT
Work_Real_End_Time='2000-01-01 01:00:00')
GROUP BY SMT_U_Line.U_Line_Number

```

```

CREATE VIEW 生产线维修视图(产线编号, 维修次数 )
AS select SMT_U_Line.U_Line_Number,count(case when
Repair_Order.Repair_Order_Number then 1 end )
From SMT_U_Line LEFT OUTER JOIN Repair_Order On
(SMT_U_Line.U_Line_Number=Repair_Order.U_Line_Number) and (NOT
Repair_End_Time='2000-01-01 01:00:00')
GROUP BY SMT_U_Line.U_Line_Number

```

```

CREATE VIEW 主板单件生产时间(主板型号, 单件成本, 单件售价,单件生产时间,总实际产量 ,总合格产量 ,总计划产量,合格率,生产完成率,总生产利润)
AS select Mainboard.Mainboard_Number, Mainboard_Cost, Mainboard_Sale_Price,
/SUM(Work_Real_Sum_Number)
SUM(Work_Real_Sum_Number),
SUM(Work_Real_Qualified_Number),SUM(Work_Plan_Number),CONCAT(TRUNCATE(SUM(Work_R
eal_Qualified_Number)/SUM(Work_Real_Sum_Number) *100,2),'%')
,CONCAT(TRUNCATE(SUM(Work_Real_Sum_Number)/SUM(Work_Plan_Number) *100,2),'%') ,
(Mainboard_Sale_Price*SUM(Work_Real_Qualified_Number)-
Mainboard_Cost*SUM(Work_Real_Sum_Number))
From Mainboard,Dispatch_Order WHERE
Mainboard.Mainboard_Number=Dispatch_Order.Mainboard_Number GROUP BY
Mainboard.Mainboard_Number

```

```

CREATE VIEW 生产员工的工作状态(员工工号,姓名,员工状态)
AS select Staff.Staff_Number,Staff_Name,U_Line_Operation_Status
From Dispatch_Order,Staff WHERE (Dispatch_Order.Staff_Number=Staff.Staff_Number)
and (Dispatch_Order.U_Line_Number=SMT_U_Line.U_Line_Number)
GROUP BY Staff.Staff_Number

```

```

CREATE Function birthday(sage date)
returns boolean NOT DETERMINISTIC NO SQL
begin
    declare date_now date;
    declare bool boolean;
    set date_now = curdate();
    if month(sage)=12 and month(date_now)=1 then
        if week(replace(sage, year(sage), year(date_now)-1), 7) = week(date_now,7)
    then
        set bool = 1;
    else
        set bool = 0;
    end if;
    elseif month(date_now)=12 and month(sage)=1 then
        if week(replace(sage, year(sage), year(date_now)+1), 7) = week(date_now,7)
    then
        set bool = 1;
    else
        set bool = 0;
    end if;
    elseif month(sage)=2 and day(sage)=29 then
        if year(date_now)%4=0 then
            if week(replace(sage, year(sage), year(date_now)),7) = week(date_now,7)
        then
            set bool = 1;
        else
            set bool = 0;
        end if;
    end if;
end

```

```

        else
            if week(concat_ws('-',year(curdate()),'03','01'),7) = week(date_now,7)
then
            set bool = 1;
            else
            set bool = 0;
            end if;
        end if;
    else
        if week(replace(sage, year(sage), year(date_now)),7) = week(date_now,7)
then
            set bool = 1;
            else
            set bool = 0;
            end if;
        end if;
        return bool;
    end
end

```

```

CREATE VIEW 本周生日员工(工号, 姓名, 出生日期 )
AS select Staff_Number, Staff_Name, Staff_Birth
From (select *, birthday(Staff_Birth) as bool from staff )as a where a.bool = 1

```

```

Select Avg(year(now())-year(Staff_Birth)+1)
From staff where month(Staff_Birth)=month(now())

```

```

CREATE VIEW 合格率大于96的生产线视图(产线编号, 合格率)
AS select
SMT_U_Line.U_Line_Number,CONCAT(TRUNCATE(SUM(work_Real_Qualified_Number)/SUM(work_Real_Sum_Number) *100,2), '%')
From SMT_U_Line,Dispatch_Order WHERE
(SMT_U_Line.U_Line_Number=Dispatch_Order.U_Line_Number) and (NOT
work_Real_End_Time='2000-01-01 01:00:00')
GROUP BY SMT_U_Line.U_Line_Number HAVING
SUM(work_Real_Qualified_Number)/SUM(work_Real_Sum_Number)>=0.96

```


