

期末報告

SQL Storeprocedure

```
alter procedure 查詢車輛時速
```

```
@intersection_id Varchar(50),
```

```
@tollgate_id Varchar(50),
```

```
@車輛ID Varchar(50)
```

```
as
```

```
begin
```

```
Declare @A2長度 float;
```

```
Declare @A3長度 float;
```

```
Declare @B1長度 float;
```

```
Declare @B3長度 float;
```

```
Declare @C1長度 float;
```

```
Declare @C3長度 float;
```

```
Declare @A2平均時間 float;
```

```
Declare @A3平均時間 float;
```

```
Declare @B1平均時間 float;
```

```
Declare @B3平均時間 float;
```

```
Declare @C1平均時間 float;
```

```
Declare @C3平均時間 float;
```

```
Declare @A2平均時速 float;
```

```
Declare @A3平均時速 float;
```

```
Declare @B1平均時速 float;
```

```
Declare @B3平均時速 float;
```

```
Declare @C1平均時速 float;
```

```
Declare @C3平均時速 float;
```

```
select @A2長度 =sum(length) from [dbo].[links (table 3)]
```

```
WHERE link_id IN ('110','123','107','108','120','117');
```

```
select @A3長度 =sum(length) from [dbo].[links (table 3)]
```

```
WHERE link_id IN ('110','123','107','108','119','114','118','122');
```

```
select @B1長度 =sum(length) from [dbo].[links (table 3)]
```

```
WHERE link_id IN ('105','100','111','103','116','101','121','106','113');
```

```
select @B3長度 =sum(length) from [dbo].[links (table 3)]
```

```
WHERE link_id IN ('105','100','111','103','122');
```

```

select @C1長度 =sum(length) from [dbo].[links (table 3)]
WHERE link_id IN
('115','102','109','104','112','111','103','116','101','121','106','113');
select @C3長度 =sum(length) from [dbo].[links (table 3)]
WHERE link_id IN ('115','102','109','104','112','111','103','122');

select @A2平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]
WHERE intersection_id='A' and tollgate_id='2';
select @A3平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]
WHERE intersection_id='A' and tollgate_id='3';
select @B1平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]
WHERE intersection_id='B' and tollgate_id='1';
select @B3平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]
WHERE intersection_id='B' and tollgate_id='3';
select @C1平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]
WHERE intersection_id='C' and tollgate_id='1';
select @C3平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]
WHERE intersection_id='C' and tollgate_id='3';

select @A2平均時速=@A2長度/@A2平均時間;
select @A3平均時速=@A3長度/@A3平均時間;
select @B1平均時速=@B1長度/@B1平均時間;
select @B3平均時速=@B3長度/@B3平均時間;
select @C1平均時速=@C1長度/@C1平均時間;
select @C3平均時速=@C3長度/@C3平均時間;

if(@intersection_id='A' and @tollgate_id='2')--車輛與A2路段
select intersection_id,tollgate_id,vehicle_id,starting_time,@A2長度 as A2長
度,travel_time,@A2長度/(travel_time) as 平均時速 from [dbo].[trajectories(table
5)_training]
where vehicle_id=@車輛ID
if(@intersection_id='A' and @tollgate_id='3')--車輛與A3路段
select intersection_id,tollgate_id,vehicle_id,starting_time,@A3長度 as A3長
度,travel_time,@A3長度/(travel_time) as 平均時速 from [dbo].[trajectories(table
5)_training]
where vehicle_id=@車輛ID
if(@intersection_id='B' and @tollgate_id='1')--車輛與B1路段

```

```

select intersection_id,tollgate_id,vehicle_id,starting_time,@B1長度 as B1長
度,travel_time,@B1長度/(travel_time) as 平均時速 from [dbo].[trajectories(table
5)_training]
where vehicle_id=@車輛ID
if(@intersection_id='B' and @tollgate_id='3')--車輛與B3路段
select intersection_id,tollgate_id,vehicle_id,starting_time,@B3長度 as B3長
度,travel_time,@B3長度/(travel_time) as 平均時速 from [dbo].[trajectories(table
5)_training]
where vehicle_id=@車輛ID
if(@intersection_id='C' and @tollgate_id='1')--車輛與C1路段
select intersection_id,tollgate_id,vehicle_id,starting_time,@C1長度 as C1長
度,travel_time,@C1長度/(travel_time) as 平均時速 from [dbo].[trajectories(table
5)_training]
where vehicle_id=@車輛ID
if(@intersection_id='C' and @tollgate_id='3')--車輛與C3路段
select intersection_id,tollgate_id,vehicle_id,starting_time,@C3長度 as C3長
度,travel_time,@C3長度/(travel_time) as 平均時速 from [dbo].[trajectories(table
5)_training]
where vehicle_id=@車輛ID

end

```

exec 查詢車輛時速 C,3,1072812

```

alter procedure 查詢路段時速
@intersection_id Varchar(50),
@tollgate_id Varchar(50)
as
begin
Declare @A2長度 float;
Declare @A3長度 float;
Declare @B1長度 float;
Declare @B3長度 float;
Declare @C1長度 float;
Declare @C3長度 float;

```

```
Declare @A2平均時間 float;  
Declare @A3平均時間 float;  
Declare @B1平均時間 float;  
Declare @B3平均時間 float;  
Declare @C1平均時間 float;  
Declare @C3平均時間 float;
```

```
Declare @A2平均時速 float;  
Declare @A3平均時速 float;  
Declare @B1平均時速 float;  
Declare @B3平均時速 float;  
Declare @C1平均時速 float;  
Declare @C3平均時速 float;
```

```
select @A2長度 =sum(length) from [dbo].[links (table 3)]  
WHERE link_id IN ('110','123','107','108','120','117');  
select @A3長度 =sum(length) from [dbo].[links (table 3)]  
WHERE link_id IN ('110','123','107','108','119','114','118','122');  
select @B1長度 =sum(length) from [dbo].[links (table 3)]  
WHERE link_id IN ('105','100','111','103','116','101','121','106','113');  
select @B3長度 =sum(length) from [dbo].[links (table 3)]  
WHERE link_id IN ('105','100','111','103','122');  
select @C1長度 =sum(length) from [dbo].[links (table 3)]  
WHERE link_id IN  
( '115','102','109','104','112','111','103','116','101','121','106','113');  
select @C3長度 =sum(length) from [dbo].[links (table 3)]  
WHERE link_id IN ('115','102','109','104','112','111','103','122');
```

```
select @A2平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]  
WHERE intersection_id='A' and tollgate_id='2';  
select @A3平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]  
WHERE intersection_id='A' and tollgate_id='3';  
select @B1平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]  
WHERE intersection_id='B' and tollgate_id='1';  
select @B3平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]  
WHERE intersection_id='B' and tollgate_id='3';  
select @C1平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]  
WHERE intersection_id='C' and tollgate_id='1';
```

```

select @C3平均時間=AVG(travel_time) from [dbo].[trajectories(table 5)_training]
WHERE intersection_id='C' and tollgate_id='3';

select @A2平均時速=@A2長度/@A2平均時間;
select @A3平均時速=@A3長度/@A3平均時間;
select @B1平均時速=@B1長度/@B1平均時間;
select @B3平均時速=@B3長度/@B3平均時間;
select @C1平均時速=@C1長度/@C1平均時間;
select @C3平均時速=@C3長度/@C3平均時間;

if(@intersection_id='A' and @tollgate_id='2')--與A2路段
select intersection_id,tollgate_id,@A2平均時速 as 平均時速 from [dbo].[routes (table
4)]
where intersection_id=@intersection_id and tollgate_id=@tollgate_id
if(@intersection_id='A' and @tollgate_id='3')--與A3路段
select intersection_id,tollgate_id,@A3平均時速 as 平均時速 from [dbo].[routes (table
4)]
where intersection_id=@intersection_id and tollgate_id=@tollgate_id
if(@intersection_id='B' and @tollgate_id='1')--與B1路段
select intersection_id,tollgate_id,@B1平均時速 as 平均時速 from [dbo].[routes (table
4)]
where intersection_id=@intersection_id and tollgate_id=@tollgate_id
if(@intersection_id='B' and @tollgate_id='3')--與B3路段
select intersection_id,tollgate_id,@B3平均時速 as 平均時速 from [dbo].[routes (table
4)]
where intersection_id=@intersection_id and tollgate_id=@tollgate_id
if(@intersection_id='C' and @tollgate_id='1')--與C1路段
select intersection_id,tollgate_id,@C1平均時速 as 平均時速 from [dbo].[routes (table
4)]
where intersection_id=@intersection_id and tollgate_id=@tollgate_id
if(@intersection_id='C' and @tollgate_id='3')--與C3路段
select intersection_id,tollgate_id,@C3平均時速 as 平均時速 from [dbo].[routes (table
4)]
where intersection_id=@intersection_id and tollgate_id=@tollgate_id

end

```

```

exec 查詢路段時速 B,3
alter procedure 查詢當日天氣
@date varchar(50)
as
begin
select @date as Date, AVG(pressure) as pressure,AVG(sea_pressure) as
sea_pressure,AVG(wind_direction) as wind_direction,AVG(temperature) as
temperature,AVG(rel_humidity) as rel_humidity,AVG(precipitation) as precipitation from
[dbo].[weather (table 7)_training]
WHERE date=@date
end

```

```

exec 查詢當日天氣 '2016-07-01'

```

```

select * from [dbo].[trajectories(table 5)_training]

```

```

alter procedure 查詢當日車輛ID
@date datetime
as
begin
select * from [dbo].[trajectories(table 5)_training] WHERE starting_time=@date
end

```

```

exec 查詢當日車輛ID '2016-07-19 00:14:00.000'

```

```

C#
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;

public partial class _Default : System.Web.UI.Page
{

```

```

protected void Page_Load(object sender, EventArgs e)
{

}

protected void Button1_Click(object sender, EventArgs e)
{

}

protected void Button1_Click1(object sender, EventArgs e)
{

    string strConn = "Data Source=140.123.174.54 ; Initial Catalog=DB605546001;
User ID=DB605546001; Password=goydon6a@gmail.com;";
    //建立連接
    SqlConnection myConn = new SqlConnection(strConn);
    //打開連接
    myConn.Open();
    String pname = "查詢路段時速"; ;
    SqlCommand com = new SqlCommand(pname, myConn);
    com.CommandType = CommandType.StoredProcedure;
    com.Parameters.AddWithValue("@intersection_id", TextBox1.Text); //insert value
    com.Parameters.AddWithValue("@tollgate_id", TextBox2.Text);
    GridView1.EmptyDataText = "No Record Retrieved";
    GridView1.DataSource = com.ExecuteReader();
    GridView1.DataBind();
    myConn.Close();
}

protected void Button2_Click(object sender, EventArgs e)
{

    string strConn = "Data Source=140.123.174.54 ; Initial Catalog=DB605546001;
User ID=DB605546001; Password=goydon6a@gmail.com;";
    //建立連接
    SqlConnection myConn = new SqlConnection(strConn);
    //打開連接

```

```

myConn.Open();
String pname = "查詢當日天氣"; ;
SqlCommand com = new SqlCommand(pname, myConn);
com.CommandType = CommandType.StoredProcedure;
com.Parameters.AddWithValue("@date", TextBox3.Text); //insert value
GridView2.EmptyDataText = "No Record Retrieved";
GridView2.DataSource = com.ExecuteReader();
GridView2.DataBind();
myConn.Close();
}

protected void Button3_Click(object sender, EventArgs e)
{
    string strConn = "Data Source=140.123.174.54 ; Initial Catalog=DB605546001;
User ID=DB605546001; Password=goydon6a@gmail.com;";
    //建立連接
    SqlConnection myConn = new SqlConnection(strConn);
    //打開連接
    myConn.Open();
    String pname = "查詢車輛時速"; ;
    SqlCommand com = new SqlCommand(pname, myConn);
    com.CommandType = CommandType.StoredProcedure;
    com.Parameters.AddWithValue("@intersection_id", TextBox4.Text); //insert value
    com.Parameters.AddWithValue("@tollgate_id", TextBox5.Text); //insert value
    com.Parameters.AddWithValue("@車輛ID", TextBox6.Text); //insert value
    GridView3.EmptyDataText = "No Record Retrieved";
    GridView3.DataSource = com.ExecuteReader();
    GridView3.DataBind();
    myConn.Close();
}
}
ASP.Net
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>

<!DOCTYPE html>

```



```

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<meta http-equiv="Content-Type" content="text/html; charset=utf-8"/>
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Label ID="Label10" runat="server" Text="資料庫期末作業-車輛查詢" Font-
Size="XX-Large" ForeColor="#3333FF"></asp:Label>
            <br />
            -----<br />
            <asp:Label ID="Label1" runat="server" Text="*查詢路段時速*" Font-
Size="Larger" Font-Underline="True" ForeColor="#3399FF"></asp:Label>
            <br />
            <asp:Label ID="Label2" runat="server" Text="intersection_id: "></asp:Label>
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br />
            <asp:Label ID="Label3" runat="server" Text="tollgate_id: "></asp:Label>
            <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
            <br />
            <asp:Button ID="Button1" runat="server" Text="查詢"
OnClick="Button1_Click1" />
            <br />
            -----<asp:GridView
ID="GridView1" runat="server" CellPadding="4" ForeColor="#333333" GridLines="None">
                <AlternatingRowStyle BackColor="White" />
                <EditRowStyle BackColor="#2461BF" />
                <FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
                <HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
                <PagerStyle BackColor="#2461BF" ForeColor="White"
HorizontalAlign="Center" />
                <RowStyle BackColor="#EFF3FB" />
                <SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True"
ForeColor="#333333" />
                <SortedAscendingCellStyle BackColor="#F5F7FB" />
                <SortedAscendingHeaderStyle BackColor="#6D95E1" />
                <SortedDescendingCellStyle BackColor="#E9EBEF" />

```

```

        <SortedDescendingHeaderStyle BackColor="#4870BE" />
    </asp:GridView>
    -----<br />
    <asp:Label ID="Label4" runat="server" Text="*查詢當日天氣*" Font-
Size="Larger" Font-Underline="True" ForeColor="#3399FF"></asp:Label>
    <br />
    <asp:Label ID="Label5" runat="server" Text="請輸入查詢日期: "></asp:Label>
    <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
    <br />
    <asp:Button ID="Button2" runat="server" Text="查詢" OnClick="Button2_Click"
/>

    <br />
    -----<asp:GridView
ID="GridView2" runat="server" CellPadding="4" ForeColor="#333333" GridLines="None">
        <AlternatingRowStyle BackColor="White" />
        <EditRowStyle BackColor="#2461BF" />
        <FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
        <HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
        <PagerStyle BackColor="#2461BF" ForeColor="White"
HorizontalAlign="Center" />
        <RowStyle BackColor="#EFF3FB" />
        <SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True"
ForeColor="#333333" />
        <SortedAscendingCellStyle BackColor="#F5F7FB" />
        <SortedAscendingHeaderStyle BackColor="#6D95E1" />
        <SortedDescendingCellStyle BackColor="#E9EBEF" />
        <SortedDescendingHeaderStyle BackColor="#4870BE" />
    </asp:GridView>
    -----<br />
    <asp:Label ID="Label6" runat="server" Text="*查詢車輛時速*" Font-
Size="Larger" Font-Underline="True" ForeColor="#3399FF"></asp:Label>
    <br />
    <asp:Label ID="Label7" runat="server" Text="intersection_id: "></asp:Label>
    <asp:TextBox ID="TextBox4" runat="server"></asp:TextBox>
    <br />
    <asp:Label ID="Label8" runat="server" Text="tollgate_id: "></asp:Label>
    <asp:TextBox ID="TextBox5" runat="server"></asp:TextBox>
    <br />

```


資料庫期末作業-車輛查詢

查詢路段時速

intersection_id: B

tollgate_id: 3

查詢

intersection_id	tollgate_id	平均時速
B	3	4.20588429522721

查詢當日天氣

請輸入查詢日期: 2016-07-02

查詢

Date	pressure	sea_pressure	wind_direction	temperature	rel_humidity	precipitation
2016-07-02	1001.87500762939	1006.75	125029	26.6249997615814	88.875	1.42499997653067

查詢車輛時速

intersection_id: C

tollgate_id: 3

請輸入車輛ID: 1072812

查詢

intersection_id	tollgate_id	vehicle_id	starting_time	C3長度	travel_time	平均時速
C	3	1072812	2016/7/19 上午 12:56:00	1206	113.54	10.6218072069354

網址:

<http://140.123.174.54:8000/DB605546001/Default.aspx>