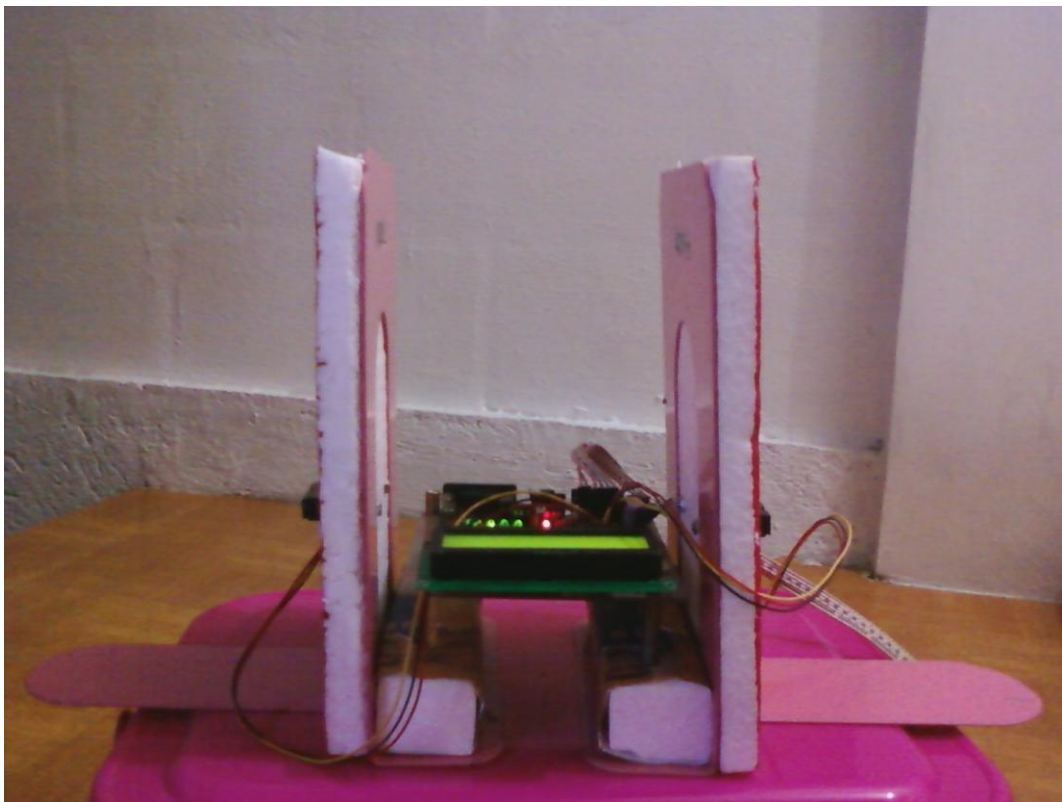
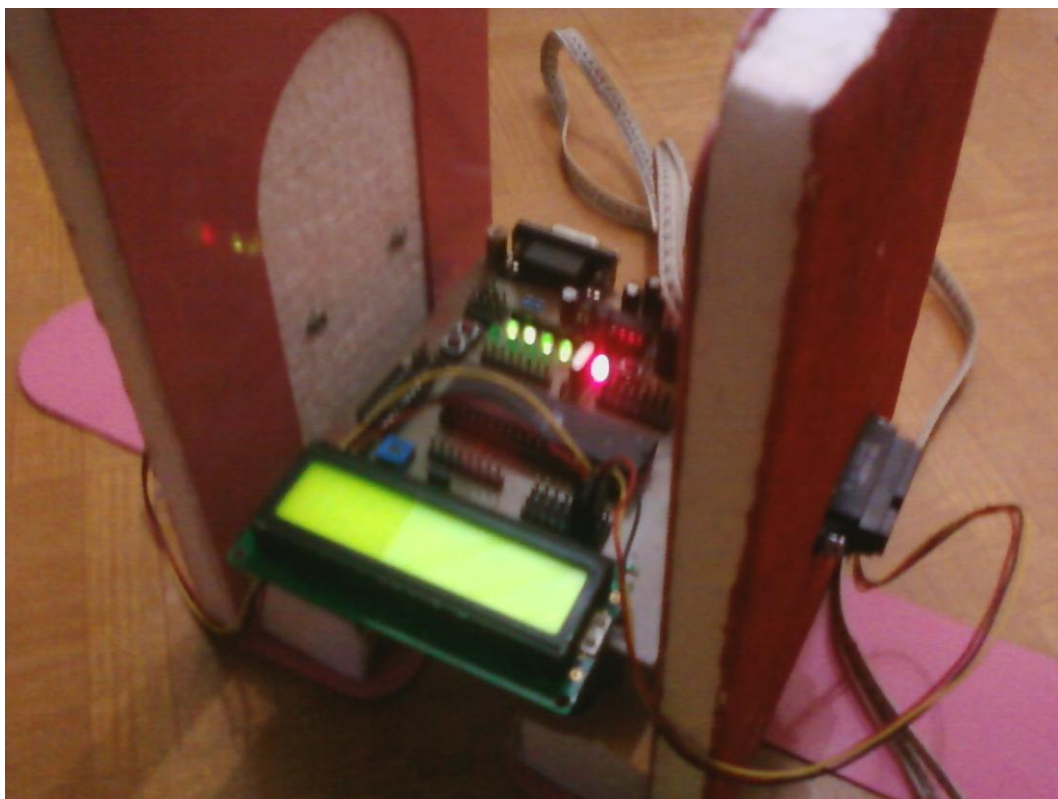


LAMPIRAN A
FOTO PERANGKAT ALAT

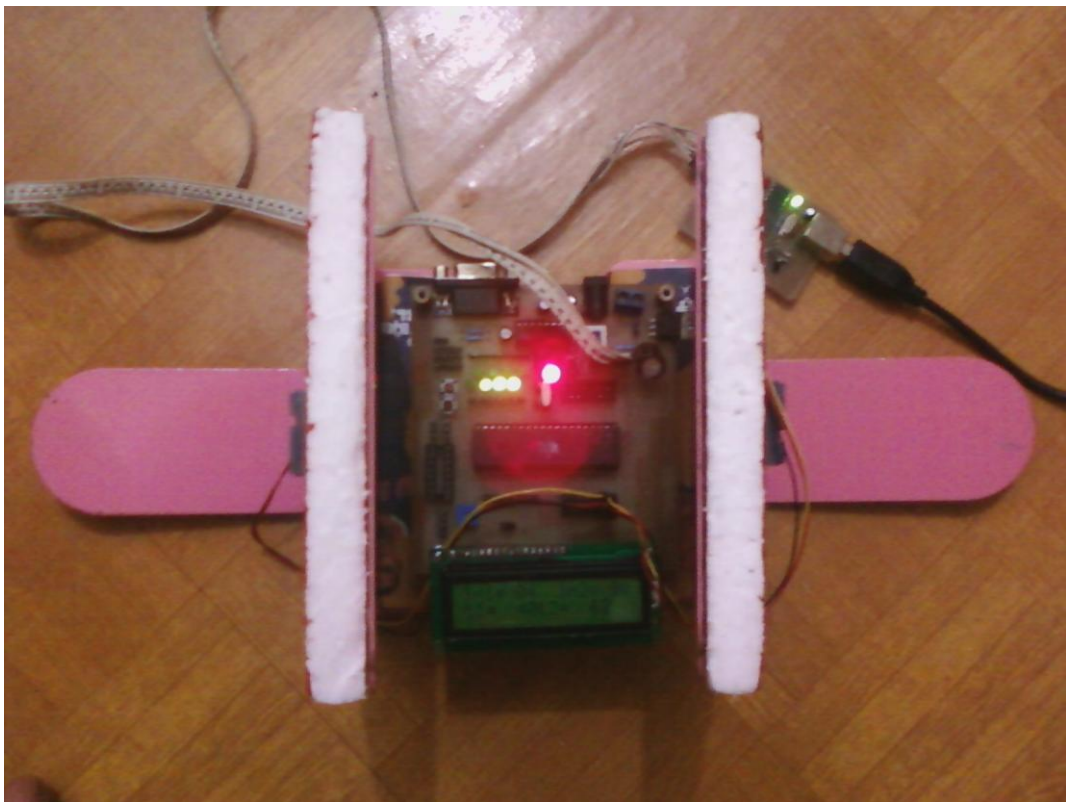
TAMPAK DEPAN



TAMPAK SAMPING DEPAN



TAMPAK ATAS



LAMPIRAN B
PROGRAM PADA PENGONTROL MIKRO
ATMEGA 16

Program Utama

/******

This program was produced by the
CodeWizardAVR V1.25.3 Standard
Automatic Program Generator
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Project :
Version :
Date : 23/01/2011
Author : F4CG
Company : F4CG
Comments:

Chip type : ATmega16
Program type : Application
Clock frequency : 11,095200 MHz
Memory model : Small
External SRAM size : 0
Data Stack size : 256

*****/

```
#include <mega16.h>
#include <stdio.h>
#include <delay.h>
#include <math.h>
```

```
// Alphanumeric LCD Module functions
```

```
#asm
```

```
    .equ __lcd_port=0x15 ;PORTC
```

```
#endasm
```

```
#include <lcd.h>
```

```
#define ADC_VREF_TYPE 0x60
```

```
// Read the 8 most significant bits
```

```
// of the AD conversion result
```

```
unsigned char read_adc(unsigned char adc_input)
```

```
{
```

```
    ADMUX=adc_input | (ADC_VREF_TYPE & 0xff);
```

```
// Start the AD conversion
```

```

ADCSRA|=0x40;
// Wait for the AD conversion to complete
while ((ADCSRA & 0x10)==0);
ADCSRA|=0x10;
return ADCH;
}

// Declare your global variables here
char text[16];
char text1[16];
char text2[16];
char text4[16];

unsigned int dl,sl,dr,sr,t1,t2;

/*
void sensor(void)
{
    // sensor 1
    sr=read_adc(1);
    if(sr<30)
    sr=20;
    dr=2141.72055*(pow(sr,-1.078867));

    if(dr<30)
    t1++;
    lcd_clear();
    sprintf(text,"j1=%3dcm/%7dj2=%3dcm/%7d",dr,t1,dl,t2);
    lcd_puts(text);
    delay_ms(50);

    // sensor 2
    sl=read_adc(2);
    if(sl<30)
    sl=20;
    dl=2141.72055*(pow(sl,-1.078867));

    if(dl<30)
    //t1++;
    lcd_clear();
    //sprintf(text,"j1=%3dcm/%7dj2=%3dcm/%7d",dr,t1,dl,t2);
    lcd_puts(text);
}

```

```

        delay_ms(50);

    }

*/
void sensor_infrared(void)
{
    sr=read_adc(1);
    if(sr<30)
        sr=20;
    dr=2141.72055*(pow(sr,-1.078867));
    sprintf(text,"In1=%3u",dr);

    sl=read_adc(2);
    if(sl<30)
        sl=20;
    dl=2141.72055*(pow(sl,-1.078867));
    sprintf(text1,"In2=%3u",dl);

    lcd_clear();
    lcd_gotoxy(0,0);
    lcd_puts(text);
    lcd_gotoxy(9,0);
    lcd_puts(text1);

    delay_ms(50);

}

void timer_1(void)
{
    t1++;
    lcd_clear();
    sprintf(text2,"t1=%4d",t1);

    lcd_gotoxy(0,1);
    lcd_puts(text2);
    delay_ms(50);
}

```



```

}

void timer_2(void)
{

    t2++;
    lcd_clear();
    sprintf(text4,"t2=%4d",t2);
    lcd_gotoxy(0,1);
    lcd_puts(text4);
    delay_ms(50);
}

```

```

void timer_bareng(void)

{
t1++;
lcd_clear();
    sprintf(text4,"t2=%4d",t1);
    lcd_gotoxy(0,1);
    lcd_puts(text4);

t2++;
    sprintf(text4,"t2=%4d",t2);
    lcd_gotoxy(0,1);
    lcd_puts(text2);

    delay_ms(50);

}

```

```

void reset(void)
{

t1=1;

    lcd_clear();
    lcd_gotoxy(0,1);
    lcd_puts(text2);

t2=1;
    lcd_gotoxy(0,9);

```

```

        lcd_puts(text4);
        delay_ms(50);
    }

void main(void)
{
// Declare your local variables here

// Input/Output Ports initialization
// Port A initialization
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTA=0x00;
DDRA=0x00;

// Port B initialization
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTB=0x00;
DDRB=0x00;

// Port C initialization
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTC=0x00;
DDRC=0x00;

// Port D initialization
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTD=0xff;
DDRD=0xff;

// Timer/Counter 0 initialization
// Clock source: System Clock
// Clock value: Timer 0 Stopped
// Mode: Normal top=FFh
// OC0 output: Disconnected
TCCR0=0x00;
TCNT0=0x00;
OCR0=0x00;

// Timer/Counter 1 initialization

```

```

// Clock source: System Clock
// Clock value: Timer 1 Stopped
// Mode: Normal top=FFFFh
// OC1A output: Discon.
// OC1B output: Discon.
// Noise Canceler: Off
// Input Capture on Falling Edge
// Timer 1 Overflow Interrupt: Off
// Input Capture Interrupt: Off
// Compare A Match Interrupt: Off
// Compare B Match Interrupt: Off
TCCR1A=0x00;
TCCR1B=0x00;
TCNT1H=0x00;
TCNT1L=0x00;
ICR1H=0x00;
ICR1L=0x00;
OCR1AH=0x00;
OCR1AL=0x00;
OCR1BH=0x00;
OCR1BL=0x00;

// Timer/Counter 2 initialization
// Clock source: System Clock
// Clock value: Timer 2 Stopped
// Mode: Normal top=FFh
// OC2 output: Disconnected
ASSR=0x00;
TCCR2=0x00;
TCNT2=0x00;
OCR2=0x00;

// External Interrupt(s) initialization
// INT0: Off
// INT1: Off
// INT2: Off
MCUCR=0x00;
MCUCSR=0x00;

// Timer(s)/Counter(s) Interrupt(s) initialization
TIMSK=0x00;

// Analog Comparator initialization
// Analog Comparator: Off
// Analog Comparator Input Capture by Timer/Counter 1: Off

```

```

ACSR=0x80;
SFIO=0x00;

// ADC initialization
// ADC Clock frequency: 693,450 kHz
// ADC Voltage Reference: AREF pin
// ADC Auto Trigger Source: None
// Only the 8 most significant bits of
// the AD conversion result are used
ADMUX=ADC_VREF_TYPE & 0xff;
ADCSRA=0x84;

// LCD module initialization
lcd_init(16);
lcd_putsf("INFRARED");
delay_ms(2000);

while (1)
{
    // Place your code here
    // sr=read_adc(1);
    // if(sr<30)
    // sr=20;
    // dr=2141.72055*(pow(sr,-1.078867));
    // sprintf(text,"Infrared1=%3u",dr);
    //
    // // ukur timer -----//
    // //
    // // if (c>=300)
    // // {
    // // t1++;
    // // lcd_clear();
    // // sprintf(text,"j1=%3dcm/%7dj2=%3dcm/%7d",a/10,t1,x/10,t2);
    // // sprintf(komp,"$%3d/%7d!%3d/%7d",a/10,t1,x/10,t2);
    // //
    // // lcd_puts(text);
    // // puts(komp); //tampilkan pesan dan ganti baris
    // // putchar("");
    // //
    // // delay_us(20);
    // //
    // // -----//
    // // sensor 2 -----//

```

```

//
//  sl=read_adc(2);
//  if(sl<30)
//  sl=20;
//  dl=2141.72055*(pow(sl,-1.078867));
//  sprintf(text1,"Infrared2=%3u",dl);
//
//  lcd_clear();
//  lcd_gotoxy(0,0);
//  lcd_puts(text);
//  lcd_gotoxy(0,1);
//  lcd_puts(text1);
//
//  delay_ms(40);

```

```

sensor_infrared();

```

```

if(dl <= 30 && dr <= 30)

```

```

{
    PORTD.0=1;
    PORTD.2=1;
    PORTD.4=1;
    PORTD.6=1;
    PORTD.1=1;
    PORTD.3=1;
    PORTD.5=1;
    PORTD.7=1;
    timer_bareng();
}

```

```

else if(dr <= 30)

```

```

{
    PORTD.1=0;
    PORTD.3=0;
    PORTD.5=0;
    PORTD.7=0;
    PORTD.0=1;
    PORTD.2=1;
    PORTD.4=1;
    PORTD.6=1;
    timer_1();
    //delay_ms(100);
}

```

```

else if(dl <= 30)

```

```
{  
    PORTD.0=0;  
    PORTD.2=0;  
    PORTD.4=0;  
    PORTD.6=0;  
    PORTD.1=1;  
PORTD.3=1;  
PORTD.5=1;  
PORTD.7=1;  
    timer_2();  
    //delay_ms(100);  
}
```

```
else  
    reset();
```

```
};  
}
```

LAMPIRAN C
PROGRAM PADA MICROSOFT
VISUAL BASIC 6.0

Program Antrian

```
Dim onLock1 As Boolean, onLock2 As Boolean, oSW1 As Integer, oSW2 As Integer
Dim Init1 As Boolean, Init2 As Boolean, BufT2 As String, BufT1 As String
Dim tmpID1 As String, tmpID2 As String
```

```
Private Sub Command1_Click()
Dim ts As String
If Command1.Caption = "Run" Then
    Timer1.Enabled = True
    Command1.Caption = "Stop"

ElseIf Command1.Caption = "Stop" Then
    Timer1.Enabled = False
    Command1.Caption = "Run"
End If
onLock1 = False
onLock2 = False
oSW1 = 0
oSW2 = 0
End Sub
```

```
Sub LoadAntrian(krit As String)
With DE.Commands("QSelect")
    .CommandText = "SELECT * FROM t_service " & IIf(krit = "", "", krit)
    Set RSTp = .Execute

    If Not RSTp.EOF Then RSTp.MoveFirst
    LsAntre.Clear
    LVID.Clear
    Do Until RSTp.EOF
        LVID.AddItem RSTp.Fields(0)
        LsAntre.AddItem RSTp.Fields(5)
        RSTp.MoveNext
    Loop
    ' JR = CDBl(RSTp.RecordCount)
    ' fr.SB.Panels(1).Text = CStr(RSTp.RecordCount) & " Record(s)"
End With
End Sub
```

```
Sub FillDetails(pit As String, kyt As String)
```



```
Dim LL As ListBox, LR As ListBox, rsLOC As New ADODB.Recordset, LB As Label
Dim Lind As ListBox
Dim TotTime As Integer
```

```
If pit = "A" Then
    Set LL = JD1
    Set LR = AVT1
    Set LB = TAT1
    Set Lind = ListA1
ElseIf pit = "B" Then
    Set LL = JD2
    Set LR = AVT2
    Set LB = TAT2
    Set Lind = ListB1
End If
```

```
With DE.Commands("QSelect")
    .CommandText = "SELECT * FROM t_detservice WHERE idsvc = " & kyt & ""
    Set rsLOC = .Execute
```

```
If Not rsLOC.EOF Then rsLOC.MoveFirst
LL.Clear
LR.Clear
TotTime = 0
Do Until rsLOC.EOF
    LL.AddItem rsLOC.Fields(2)
    LR.AddItem rsLOC.Fields(3)
    TotTime = TotTime + rsLOC.Fields(3)
    rsLOC.MoveNext
Loop
LB.Caption = TotTime
Lind.AddItem TotTime
' JR = CDbI(RSTp.RecordCount)
' fr.SB.Panels(1).Text = CStr(RSTp.RecordCount) & " Record(s)"
End With
End Sub
```

```
Sub RecordData(pit As String)
Dim LTL As ListBox, LTR As ListBox, rsLOC As New ADODB.Recordset, LBT As Label
Dim LBS As ListBox
Dim Eft As Double
```

```

If pit = "A" Then
    Set LTL = ListA2
    Set LTR = ListA3
    Set LBT = TAT1
    Set LBS = ListA1
ElseIf pit = "B" Then
    Set LTL = ListB2
    Set LTR = ListB3
    Set LBT = TAT2
    Set LBS = ListB1
End If

```

```

If LBS.ListCount = 0 Then Exit Sub

```

```

If pit = "A" Then
    LTL.AddItem BufT1
    ' Eft = (Cdbl(BufT1) / Cdbl(LBT.Caption)) * 100
    Eft = Cdbl(LBT.Caption) - Cdbl(BufT1)
ElseIf pit = "B" Then
    LTL.AddItem BufT2
    ' Eft = (Cdbl(BufT2) / Cdbl(LBT.Caption)) * 100
    Eft = Cdbl(LBT.Caption) - Cdbl(BufT2)
End If

```

```

LTR.AddItem Round(Eft, 3)

```

```

'----- Save ke Database -----

```

```

Call UpdateTable("t_service", "jamservice = " & Format(Time, "hh:mm:ss") & _
    ", pit = " & pit & ", tavn = " & LBS.List(0) & ", totaltime = " & _
    IIf(pit = "A", CStr(CInt(BufT1)), CStr(CInt(BufT2))) & ", selisih = " & _
    Replace(Round(Eft, 3), ",", ".", , , vbTextCompare) & _
    " WHERE idsvc = " & IIf(pit = "A", tmpID1, tmpID2) & "")

```

```

End Sub

```

```

Private Sub Command2_Click()
    Call LoadAntrian("WHERE pit = """)
    If LsAntre.ListCount > 0 Then Command1.Enabled = True
    MsgBox "PERHATIAN! Hubungkan Kabel Data Serial ke Port COM1" & vbCrLf & _

```

```

    "Pastikan Device dalam Posisi ON sebelum klik RUN"
End Sub

Private Sub Form_Load()
Dim j As Integer

MSComm1.CommPort = 1
MSComm1.Settings = "9600,N,8,1"
MSComm1.InputLen = 0
MSComm1.PortOpen = True

onLock1 = False
onLock2 = False
Init1 = True
Init2 = True

Call LoadAntrian(" WHERE pit is null")

End Sub

Private Sub Form_Unload(Cancel As Integer)
MSComm1.PortOpen = False

End Sub

Private Sub TBuf1_Timer()

End Sub

Private Sub TBuf2_Timer()
End Sub

Private Sub TBuf_Timer()
    BufT2 = T2.Text
    BufT1 = T1.Text
End Sub

Private Sub Timer1_Timer()
Dim sf1 As String, sf2 As String, sf3 As String, sf4 As String, sf5 As String, sf6 As String, v As Integer
Dim ambil As String, pck As String
Dim Sen1() As String, Sen2() As String, pecah() As String, part() As String

```

```

On Error GoTo ConError

status.Caption = "ON-LINE"

hasil = MSComm1.Input

If hasil = "" Then GoTo ConError

sf1 = Replace(hasil, Chr(10), "", , , vbTextCompare)
sf2 = Replace(sf1, Space(1), "0", , , vbTextCompare)

For t = 1 To Len(hasil)
  If Mid(sf2, t, 1) <> "" Then
    If Asc(Mid(sf2, t, 1)) > 47 And Asc(Mid(sf2, t, 1)) < 58 Then
      pck = pck & Mid(Trim(sf2), t, 1)
    End If
    If Asc(Mid(sf2, t, 1)) = 47 Then
      pck = pck & Mid(Trim(sf2), t, 1)
    End If
    If Asc(Mid(sf2, t, 1)) = 33 Then
      pck = pck & Mid(Trim(sf2), t, 1)
    End If
    If Asc(Mid(sf2, t, 1)) = 36 Then
      pck = pck & Mid(Trim(sf2), t, 1)
    End If
  End If
End If
Next t

If Len(Trim(pck)) >= 24 Then
  ambil = Left(Trim(pck), 32)
End If

List1.AddItem ambil

Text1.Text = ambil

part = Split(ambil, "$")

pecah = Split(part(1), "!")

```

```
If LBound(pecah) = 0 Then
    Sen1 = Split(pecah(0), "/")
    J1.Text = Sen1(0)
    T1.Text = Sen1(1)
End If
```

```
If UBound(pecah) = 1 Then
    If Len(pecah(1)) = 11 Then
        Sen2 = Split(pecah(1), "/")
        J2.Text = Sen2(0)
        T2.Text = Sen2(1)
    End If
End If
```

```
If J1.Text = "" Or J2.Text = "" Then Exit Sub
```

```
If Init1 = True And CInt(J1.Text) <> 0 Then
    NOA1.Caption = LsAntre.List(0)
    ListA.AddItem LsAntre.List(0)
    tmpID1 = LVID.List(0)
    Call FillDetails("A", LVID.List(0))
```

```
LsAntre.RemoveItem 0
LVID.RemoveItem 0
```

```
Init1 = False
End If
```

```
If Init2 = True And CInt(J2.Text) <> 0 Then
    NOA2.Caption = LsAntre.List(0)
    ListB.AddItem LsAntre.List(0)
    tmpID2 = LVID.List(0)
    Call FillDetails("B", LVID.List(0))
```

```
LsAntre.RemoveItem 0
LVID.RemoveItem 0
```

```
Init2 = False
End If
```

```

If CInt(J1.Text) < 30 And CInt(T1.Text) <> 0 And ListA.ListCount <> ListA2.ListCount Then
    LS1.ForeColor = vbRed
    LS1.Caption = "IN"
    Timer3.Enabled = True
ElseIf CInt(J1.Text) > 30 And CInt(T1.Text) = 0 Then
    LS1.ForeColor = vbGreen
    LS1.Caption = "OUT"
End If

```

```

If CInt(J2.Text) < 30 And CInt(T2.Text) <> 0 And ListB.ListCount <> ListB2.ListCount Then
    LS2.ForeColor = vbRed
    LS2.Caption = "IN"
    Timer2.Enabled = True
ElseIf CInt(J2.Text) > 30 And CInt(T2.Text) = 0 Then
    LS2.ForeColor = vbGreen
    LS2.Caption = "OUT"
End If

```

```

If onLock1 = True And LS2.Caption = "OUT" Then
    If CInt(T2.Text) = 0 And oSW1 = 0 Then
        Call RecordData("B")

```

```

    If LsAntre.ListCount <> 0 Then
        NOA2.Caption = LsAntre.List(0)
        ListB.AddItem LsAntre.List(0)
        tmpID2 = LVID.List(0)
        Call FillDetails("B", LVID.List(0))
        LsAntre.RemoveItem 0
        LVID.RemoveItem 0

```

```

    Else
        If ListA.ListCount = ListA2.ListCount Then
            JD2.Clear
            AVT2.Clear
            TAT2.Caption = ""
            NOA2.Caption = ""
            LS2.Caption = ""
            Label5.Caption = ""
            Timer1.Enabled = False
        End If
    End If
    Label5.Caption = ""

```

```

oSW1 = 1
onLock1 = False
End If
Else
oSW1 = 0
End If

If onLock2 = True And LS1.Caption = "OUT" Then
If Cint(T1.Text) = 0 And oSW2 = 0 Then
Call RecordData("A")

If LsAntre.ListCount <> 0 Then
NOA1.Caption = LsAntre.List(0)
ListA.AddItem LsAntre.List(0)
tmpID1 = LVID.List(0)
Call FillDetails("A", LVID.List(0))
LsAntre.RemoveItem 0
LVID.RemoveItem 0
Else
If ListB.ListCount = ListB2.ListCount Then
JD1.Clear
AVT1.Clear
TAT1.Caption = ""
NOA1.Caption = ""
LS1.Caption = ""
Label6.Caption = ""
Timer1.Enabled = False
End If
End If
Label6.Caption = ""
oSW2 = 1
onLock2 = False
End If
Else
oSW2 = 0
End If

Exit Sub
ConError:
If hasil = "" Then

```

```

    status.Caption = "OFF-LINE - No Data Received"
Else
    status.Caption = "OFF-LINE" & " " & Err.Description
End If
J1.Text = "000"
T1.Text = "0000000"
J2.Text = "000"
T2.Text = "0000000"
LS1.Caption = ""
LS2.Caption = ""
Label5.Caption = ""
Label6.Caption = ""

End Sub

Private Sub Timer2_Timer()
If CInt(T2.Text) > 50 And ListB.ListCount <> ListB2.ListCount Then
    onLock1 = True
    Label5.Caption = "WORKING"
    Timer2.Enabled = False
End If
End Sub

Private Sub Timer3_Timer()
If CInt(T1.Text) > 50 And ListA.ListCount <> ListA2.ListCount Then
    onLock2 = True
    Label6.Caption = "WORKING"
    Timer3.Enabled = False
End If
End Sub

```


Program Pendaftaran

Dim Mode As Integer, TotBeli As Double, onKlik As Boolean, RPO As Integer
Dim tmKDB As String, tmKDS As String, onsdet As Boolean

Function CekBasket(kn As String) As Boolean

Dim i As Integer

CekBasket = True

For i = 1 To GRB.Rows - 1

If GRB.TextMatrix(i, 0) = kn Then

CekBasket = False

Exit For

End If

Next i

End Function

Sub DisplayDetail(ky As String)

pnDet.Visible = False

With DE.Commands("QSelect")

.CommandText = "select a.idsvc, b.nojob, b.jobname, b.averagetime from " & _

"t_detservice a inner join t_jobS b on a.nojob=b.nojob where a.idsvc = " & ky & ""

Set rsdt = .Execute

Set GRDT.DataSource = rsdt

GRDT.Columns(0).Width = 1200

GRDT.Columns(2).Width = 900

GRDT.Columns(3).Width = 1000

End With

pnDet.Visible = True

End Sub

Private Sub B1_Click()

Mode = 1

I1.Text = NewKeys("t_service", "idsvc", "S")

Call KunciTeks(0, True)

Call AturTombol(FDaftar, "00110")

I9.Text = AutoUrut("t_service")

End Sub

Function GetStok(ky As String) As Double

```

Dim rsLOC As New ADODB.Recordset
With DE.Commands("QSelect")
    .CommandText = "SELECT stokakhir from t_barang WHERE id_barang = " & ky & ""
    Set rsLOC = .Execute
    If rsLOC.RecordCount = 0 Then
        GetStok = 0
    Else
        GetStok = rsLOC.Fields(0)
    End If
    Set rsLOC = Nothing
End With
End Function

```

```
Private Sub B10_Click()
```

```
Dim subttl As Double
```

```
With GRB
```

```
    .TextMatrix(RPO, 0) = tmKDB
```

```
    .TextMatrix(RPO, 1) = I3.Text
```

```
    .TextMatrix(RPO, 2) = I6.Text
```

```
Call SumGrid
```

```
TBELI.Caption = Format(TotBeli, "###,###,###")
```

```
Call Bersih(1)
```

```
B10.Enabled = False
```

```
B7.Enabled = False
```

```
B2.Enabled = False
```

```
B8.Enabled = False
```

```
Mode = 1
```

```
I3.SetFocus
```

```
End With
```

```
End Sub
```

```
Private Sub B2_Click()
```

```
Dim y As Integer
```

```
Mode = 2
```

```
tmKDB = GRB.TextMatrix(GRB.Row, 0)
```

```
For y = 0 To I3.ListCount - 1
```

```
    If GRB.TextMatrix(GRB.Row, 1) = I3.List(y) Then
```

```
        I3.ListIndex = y
```

```

Exit For
End If
Next y
I5.Text = GRB.TextMatrix(GRB.Row, 0)
I6.Text = GRB.TextMatrix(GRB.Row, 2)
' I6.Text = GRB.TextMatrix(GRB.Row, 4)
B8.Enabled = False
B10.Enabled = True
B2.Enabled = False
B7.Enabled = False
End Sub

Function CekKodeNIP() As Boolean
Dim rsLOC As New ADODB.Recordset
With DE.Commands("QSelect")
' .CommandText = "SELECT nip from pembelian WHERE nip = " & _
'   I1.Text & ""
' Set rsLOC = .Execute
' If rsLOC.RecordCount = 0 Then
'   CekKodeNIP = True
' Else
'   CekKodeNIP = False
' End If
End With
End Function

Private Sub B3_Click()
Dim j As Integer, cStok As Double
If GRB.Rows = 1 Then
MsgBox "Keranjang masih kosong", vbExclamation, "Validasi"
Exit Sub
End If

If I8.Text = "" Or I9.Text = "" Then
MsgBox "Masih ada yang kosong", vbExclamation, "Validasi"
Exit Sub
End If

If Mode = 1 Then
' If CekKodeNIP = False Then
'   MsgBox "Kode NIP sudah terdaftar", vbExclamation, "Error"

```

```

' Exit Sub
' End If
'End If

If Mode = 1 Then
Call InsertTable("t_service", "idsvc, tglservice, janservice, nostnk, pit, noantri," & _
"tavt, totaltime, efisiensi", "" & _
I1.Text & "," & Format(Date, "dd/mm/yyyy") & "," & I8.Text & "," & I9.Text & _
",0,0,0")

For j = 1 To GRB.Rows - 1
Call InsertTable("t_detservice", "idsvc, nojob, jobname, averagetime", "" & _
I1.Text & "," & GRB.TextMatrix(j, 0) & "," & GRB.TextMatrix(j, 1) & "," & _
GRB.TextMatrix(j, 2))

Next j

End If
Mode = 0
TotBeli = 0

' Call PreviewNota(I1.Text)

Call DisplayData(FDaftar, "t_service", "")
Set GRD.DataSource = RSTp

Call Bersih(0)
Call KunciTeks(0, False)
Call KunciTeks(1, False)
Call AturTombol(FDaftar, IIf(JR = 0, "10000", "10001"))

End Sub

Private Sub B4_Click()
Mode = 0
Call Bersih(0)
Call KunciTeks(0, False)
Call KunciTeks(1, False)
Call AturTombol(FDaftar, IIf(JR = 0, "10000", "10001"))
End Sub

```

```

Private Sub B5_Click()
If MsgBox("Hapus PO dengan Nomor PO " & RSTp.Fields(0) & "?", _
vbQuestion + vbYesNo, "Hapus") = vbNo Then Exit Sub
With DE.Commands("QInsert")
.CommandText = "DELETE FROM po WHERE no_po=" & RSTp.Fields(0) & ""
.Execute

.CommandText = "DELETE FROM po_detail WHERE no_po=" & RSTp.Fields(0) & ""
.Execute

End With
Mode = 0
Call DisplayData(FDaftar, "po", "")
Set GRD.DataSource = RSTp
Call AturTombol(FDaftar, IIf(JR = 0, "10000", "10001"))

End Sub

Private Sub Command5_Click()
Unload Me
End Sub

Private Sub B6_Click()
Unload Me
End Sub

Private Sub B7_Click()
Dim pgl() As String, subttl As Double, cStok As Double

If CekBasket(tmKDB) = False Then
MsgBox "Pekerjaan sudah ditambahkan", vbExclamation, "Validasi"
Exit Sub
End If

With GRB
pgl = Split(LV2.List(I3.ListIndex), "#")
.AddItem pgl(0) & vbTab & I3.Text & vbTab & I6.Text
End With
Call SumGrid

```

```

TBELI.Caption = Format(TotBeli, "###,###,###")

Call KunciTeks(0, False)
Call Bersih(1)
I3.SetFocus
End Sub

Sub SumGrid()
Dim e As Integer
TotBeli = 0
For e = 1 To GRB.Rows - 1
    TotBeli = TotBeli + Cdbl(GRB.TextMatrix(e, 2))
Next e
End Sub

Private Sub B8_Click()
If GRB.Rows <> 1 Then
    TotBeli = TotBeli - GRB.TextMatrix(GRB.Rows - 1, 2)
    GRB.Rows = GRB.Rows - 1
    Call SumGrid
    TBELI.Caption = Format(TotBeli, "###,###,###")

    B8.Enabled = False
    Mode = 1
    B2.Enabled = False
    If GRB.Rows = 1 Then
        B10.Enabled = False
    End If
End If
End Sub

Private Sub bBersih_Click()
If MsgBox("Hapus Semua Transaksi ?", _
    vbQuestion + vbYesNo, "Hapus") = vbNo Then Exit Sub
With DE.Commands("QInsert")
.CommandText = "DELETE FROM t_service"
.Execute

.CommandText = "DELETE FROM t_detSERVICE"
.Execute

```

```

End With
Mode = 0
Call DisplayData(FDaftar, "t_service", "")
Set GRD.DataSource = RSTp
pnDet.Visible = False
Call AturTombol(FDaftar, IIf(JR = 0, "10000", "10001"))

```

```

End Sub

```

```

Private Sub bHapus_Click()
If MsgBox("Hapus Transaksi dengan Nomor : " & RSTp.Fields(0) & "?", _
vbQuestion + vbYesNo, "Hapus") = vbNo Then Exit Sub
With DE.Commands("QInsert")
.CommandText = "DELETE FROM t_service WHERE idsvc=" & RSTp.Fields(0) & ""
.Execute

.CommandText = "DELETE FROM t_detSERVICE WHERE idsvc=" & RSTp.Fields(0) & ""
.Execute

```

```

End With
Mode = 0
Call DisplayData(FDaftar, "t_service", "")
Set GRD.DataSource = RSTp
pnDet.Visible = False
Call AturTombol(FDaftar, IIf(JR = 0, "10000", "10001"))

```

```

End Sub

```

```

Private Sub Command6_Click()
If Cari.ListIndex < 0 Then Exit Sub
With RSTp
If Not .BOF Then .MoveFirst
.Find Cari.Text & "=" & Tcr.Text & "", , adSearchForward, 0
If .EOF Then
MsgBox "Data Tidak Ditemukan", vbExclamation, "Cari"
Exit Sub
End If
Tcr.Text = ""
Call AturTombol(FDaftar, "11001")

```

End With

End Sub

Private Sub Form_Activate()

Mode = 0

onKlik = False

onsdet = False

tgl.Caption = Format(Date, "dd mmmm yyyy")

Call SetupGrid

Call RaiseData(1)

Call DisplayData(FDaftar, "t_service", " ORDER BY idsvc")

Set GRD.DataSource = RSTp

GRD.Columns(0).Width = 600

GRD.Columns(1).Width = 1000

GRD.Columns(2).Width = 900

GRD.Columns(3).Width = 1000

GRD.Columns(4).Width = 600

GRD.Columns(5).Width = 800

GRD.Columns(6).Width = 800

GRD.Columns(7).Width = 800

GRD.Columns(8).Width = 800

GRD.Columns(3).NumberFormat = "Rp###,###,###"

B7.Enabled = False

If onCash = 1 Then

Label20.Enabled = False

I15.Enabled = False

End If

Call AturTombol(FDaftar, IIf(JR = 0, "10000", "10001"))

End Sub

Sub IsiEdit()

With RSTp

I1.Text = .Fields(0)

I2.Text = .Fields(1)

I3.Text = .Fields(2)

I2.SetFocus

End With

End Sub


```
Sub Bersih(md As Integer)
```

```
If md = 0 Then
```

```
I1.Text = ""
```

```
I3.ListIndex = -1
```

```
I5.Text = ""
```

```
I6.Text = "0"
```

```
I8.Text = ""
```

```
I9.Text = ""
```

```
pnBarang.Visible = False
```

```
TotBeli = 0
```

```
TBELI.Caption = "0"
```

```
GRB.Rows = 1
```

```
ElseIf md = 1 Then
```

```
I3.ListIndex = -1
```

```
I5.Text = ""
```

```
I6.Text = "0"
```

```
End If
```

```
End Sub
```

```
Sub KunciTeks(md As Integer, ak As Boolean)
```

```
If md = 0 Then
```

```
I8.Enabled = ak
```

```
If ak = True Then I8.SetFocus
```

```
Else
```

```
I3.Enabled = ak
```

```
I5.Enabled = ak
```

```
End If
```

```
End Sub
```

```
Private Sub Form_Load()
```

```
Dim j As Integer
```

```
Call KunciTeks(0, False)
```

```
Call KunciTeks(1, False)
```

```
End Sub
```

```
Sub RaiseData(ix As Integer, Optional krit As String)
```

```
Dim tbl As String, rsLOC As New ADODB.Recordset, sqle As String
```

```
Dim cmb As ComboBox, Ls As ListBox
```

```

Select Case ix
Case 1
tbl = "t_barang"
Set cmb = I3
Set Ls = LV2
sqle = "SELECT * FROM t_jobs ORDER BY nojob"
Case 2
tbl = "t_pelanggan"
Set cmb = I7
Set Ls = Lv3
sqle = "SELECT * FROM t_pelanggan order by id_pelanggan"
End Select
With DE.Commands("QSelect")
.CommandText = sqle
Set rsLOC = .Execute
If rsLOC.RecordCount = 0 Then Exit Sub
cmb.Clear
JKel = CStr(rsLOC.RecordCount)
Ls.Clear
Do Until rsLOC.EOF
If ix = 1 Then
cmb.AddItem rsLOC.Fields(1)
Ls.AddItem rsLOC.Fields(0) & "#" & rsLOC.Fields(2)
Else
cmb.AddItem rsLOC.Fields(1)
Ls.AddItem rsLOC.Fields(0) & "#" & rsLOC.Fields(2) & "#" & rsLOC.Fields(3)
End If
rsLOC.MoveNext
Loop
End With

End Sub

Sub SetupGrid()
On Error Resume Next
With GRB
.FixedCols = 0
.FixedRows = 1
.Cols = 3
.Rows = 1
.RowHeight(0) = 600

```

```

.TextMatrix(0, 0) = "No Job"
.TextMatrix(0, 1) = "Nama Pekerjaan"
.TextMatrix(0, 2) = "Average" & vbCrLf & "Time(ms)"

.ColWidth(1) = 2700
.ColWidth(2) = 1400
End With
End Sub

Private Sub GRB_Click()
onKlik = True
End Sub

Private Sub GRB_RowColChange()
If onKlik = False Then Exit Sub
RPO = GRB.Row

B2.Enabled = True
B7.Enabled = False
B8.Enabled = True
End Sub

Private Sub GRD_Click()
onsdet = True
End Sub

Private Sub GRD_RowColChange(LastRow As Variant, ByVal LastCol As Integer)
If RSTp.RecordCount = 0 Then Exit Sub
If onsdet = True Then
bHapus.Enabled = True
Call DisplayDetail(RSTp.Fields(0))
End If
End Sub

Private Sub I11_Change()
If I11.Text = "" Then I11.Text = "0"
If TotBeli = 0 Then Exit Sub

Dim tem As Double
tem = TotBeli - CDBl(I11.Text)
PPN.Caption = Round(tem * 0.1, 2)

```

```

NETTO.Caption = CStr(tem + CDb1(PPN.Caption))
End Sub

Function CekisPO(kp As String) As Boolean
Dim rsLOC As New ADODB.Recordset
With DE.Commands("QSelect")
.CommandText = "SELECT no_ro from po WHERE no_ro = " & kp & ""
Set rsLOC = .Execute
If rsLOC.RecordCount = 0 Then
CekisPO = True
Else
CekisPO = False
End If
End With
End Function

Private Sub I2_Click()
If I2.ListIndex < 0 Then Exit Sub
Dim ptg() As String

ptg = Split(Lv1.List(I2.ListIndex), "#")

tmKDS = ptg(0)

If CekisPO(tmKDS) = False Then
MsgBox "Request Order telah terdaftar pada Purchase Order", vbExclamation, "Validasi"
Exit Sub
End If

I7.Text = ptg(1)
I8.Text = ptg(2)
I9.Text = ptg(3)
I10.Text = ptg(4)

pnBarang.Visible = True
Call RaiseData(1, ptg(0))
End Sub

Private Sub I3_Click()
If I3.ListIndex < 0 Then Exit Sub
Dim ptg() As String

```

```
ptg = Split(LV2.List(I3.ListIndex), "#")
tmKDB = ptg(0)
```

```
I5.Text = ptg(0)
I6.Text = ptg(1)
```

```
If Mode = 1 Then B7.SetFocus
End Sub
```

```
Private Sub I5_Change()
If Mode = 2 Then Exit Sub
If I5.Text = "" Or I6.Text = "" Then
    B7.Enabled = False
Else
    B7.Enabled = True
End If
End Sub
```

```
Private Sub I6_Change()
If Mode = 2 Then Exit Sub
If I5.Text = "" Or I6.Text = "" Then
    B7.Enabled = False
Else
    B7.Enabled = True
End If
End Sub
```

```
Private Sub I7_Click()
If I7.ListIndex < 0 Then Exit Sub
Dim ptg() As String

ptg = Split(Lv3.List(I7.ListIndex), "#")
tmKDS = ptg(0)

I8.Text = ptg(2)
I9.Text = ptg(1)

pnBarang.Visible = True
Call KunciTeks(1, True)
```

```
I3.SetFocus
```

```
End Sub
```

```
Private Sub I8_KeyDown(KeyCode As Integer, Shift As Integer)
```

```
  If KeyCode = 13 Then
```

```
    pnBarang.Visible = True
```

```
    Call KunciTeks(1, True)
```

```
    I3.SetFocus
```

```
  End If
```

```
End Sub
```

```
Private Sub Tcr_Change()
```

```
  pnDet.Visible = False
```

```
  onsdet = False
```

```
End Sub
```

Program Data Pekerjaan

Dim Mode As Integer

```
Private Sub B1_Click()  
    Mode = 1  
    I1.Text = NewKeys("t_jobs", "nojob", "J")  
    Call KunciTeks(True)  
    Call AturTombol(FJob, "00110")  
End Sub
```

```
Private Sub B2_Click()  
    Mode = 2  
    Call KunciTeks(True)  
    Call AturTombol(FJob, "00110")  
    Call IsiEdit  
End Sub
```

```
Function CekKunci() As Boolean  
    Dim rsLOC As New ADODB.Recordset  
    With DE.Commands("QSelect")  
        .CommandText = "SELECT nojob from t_jobs WHERE nojob = " & _  
            I1.Text & """"  
        Set rsLOC = .Execute  
        If rsLOC.RecordCount = 0 Then  
            CekKunci = True  
        Else  
            CekKunci = False  
        End If  
    End With  
End Function
```

```
Function CekNama() As Boolean  
    Dim rsLOC As New ADODB.Recordset  
    With DE.Commands("QSelect")  
        .CommandText = "SELECT Jobname from t_jobs WHERE jobname = " & _  
            I2.Text & """"  
        Set rsLOC = .Execute  
        If rsLOC.RecordCount = 0 Then  
            CekNama = True  
        Else
```

```

    CekNama = False
End If
End With
End Function

Private Sub B3_Click()
If I1.Text = "" Or I2.Text = "" Or I3.Text = "" Then
    MsgBox "Masih ada yang belum terisi", vbExclamation, "Validasi"
    Exit Sub
End If

If Not IsNumeric(I3.Text) Then
    MsgBox "Waktu Rata2 Pekerjaan harus dengan Angka", vbExclamation, "Validasi"
    Exit Sub
End If

If Mode = 1 Then
    If CekKunci = False Then
        MsgBox "No Pekerjaan sudah terdaftar", vbExclamation, "Error"
        Exit Sub
    End If
    If CekNama = False Then
        MsgBox "Nama Pekerjaan sudah terdaftar", vbExclamation, "Error"
        Exit Sub
    End If
End If

If Mode = 1 Then
Call InsertTable("t_jobs", "nojob, jobname, " & _
    "averagetime", "" & I1.Text & "," & I2.Text & _
    "," & I3.Text & """)
ElseIf Mode = 2 Then
Call UpdateTable("t_jobs", "jobname = " & I2.Text & _
    ",averagetime = " & I3.Text & _
    " WHERE nojob=" & I1.Text & """)
End If
Mode = 0

Call DisplayData(FJob, "t_jobs", "")
Set GRD.DataSource = RSTp

```



```

Call Bersih
Call KunciTeks(False)
Call AturTombol(FJob, IIf(JR = 0, "10000", "10001"))

End Sub

Private Sub B4_Click()
Mode = 0
Call Bersih
Call KunciTeks(False)
Call AturTombol(FJob, IIf(JR = 0, "10000", "10001"))
End Sub

Private Sub B5_Click()
If MsgBox("Hapus Pekerjaan dengan Nama " & RSTp.Fields(1) & "?", _
vbQuestion + vbYesNo, "Hapus") = vbNo Then Exit Sub
With DE.Commands("QInsert")
.CommandText = "DELETE FROM t_jobs WHERE nojob=" & RSTp.Fields(0) & ""
.Execute
End With
Mode = 0
Call DisplayData(FJob, "t_jobs", "")
Set GRD.DataSource = RSTp
Call AturTombol(FJob, IIf(JR = 0, "10000", "10001"))

End Sub

Private Sub Command5_Click()
Unload Me
End Sub

Private Sub B6_Click()
Unload Me
End Sub

Private Sub Command6_Click()
If Command6.Caption = "Cari" Then
If Cari.ListIndex < 0 Then Exit Sub
Call DisplayData(FJob, "t_jobs", " WHERE " & Cari.Text & " LIKE '%" & Tcr.Text & "%")
Set GRD.DataSource = RSTp
If RSTp.EOF Then

```

```

    MsgBox "Data Tidak Ditemukan", vbExclamation, "Cari"
    Exit Sub
End If
Tcr.Text = ""
Call AturTombol(FJob, "11001")
Command6.Caption = "Refresh"
ElseIf Command6.Caption = "Refresh" Then
    Call AturTombol(FJob, "11001")
    Command6.Caption = "Cari"
    Cari.ListIndex = -1
    Call DisplayData(FJob, "t_jobs", "")
    Set GRD.DataSource = RSTp
End If
End Sub

```

```

Private Sub Form_Activate()
    Mode = 0
    Call DisplayData(FJob, "t_jobs", "")
    Set GRD.DataSource = RSTp
    Call AturTombol(FJob, IIf(JR = 0, "10000", "10001"))
End Sub

```

```

Sub IsiEdit()
    With RSTp
        I1.Text = .Fields(0)
        I2.Text = .Fields(1)
        I3.Text = .Fields(2)
        I2.SetFocus
    End With
End Sub

```

```

Sub Bersih()
    I1.Text = ""
    I2.Text = ""
    I3.Text = ""
End Sub

```

```

Sub KunciTeks(ak As Boolean)
    I1.Enabled = ak
    I2.Enabled = ak
    I3.Enabled = ak

```

```
If ak = True Then I2.SetFocus  
End Sub
```

```
Private Sub Form_Load()  
    Call KunciTeks(False)  
End Sub
```

```
Private Sub GRD_Click()  
    onKlik = True  
    Call AturTombol(FJob, "11001")  
End Sub
```

Program Menu Utama

```
Sub SwitchMenus(sets As String)
    M1.Enabled = KonvBool(Mid(sets, 1, 1))
    M2.Enabled = KonvBool(Mid(sets, 2, 1))
    M3.Enabled = KonvBool(Mid(sets, 3, 1))
    bOK.Visible = Not KonvBool(Mid(sets, 3, 1))
    PD.Enabled = Not KonvBool(Mid(sets, 3, 1))
    UN.Enabled = Not KonvBool(Mid(sets, 3, 1))
End Sub
```

```
Private Sub bOK_Click()
    If UN.Text = "admin" Then
        If PD.Text = "987123" Then
            Call SwitchMenus("111")
        Else
            MsgBox "Password Salah"
        End If
    Else
        MsgBox "UserID Salah"
    End If
End Sub
```

```
Private Sub Form_Load()
    Call SwitchMenus("000")
End Sub
```

```
Private Sub M01_Click()
    End
End Sub
```

```
Private Sub M1_Click()
    FJob.Show
End Sub
```

```
Private Sub M2_Click()
    FDaftar.Show
End Sub
```

```
Private Sub M3_Click()
```

```
FAntre.Show
```

```
End Sub
```

```
Private Sub PD_KeyDown(KeyCode As Integer, Shift As Integer)
```

```
    If KeyCode = 13 Then bOK_Click
```

```
End Sub
```

```
Private Sub UN_KeyDown(KeyCode As Integer, Shift As Integer)
```

```
    If KeyCode = 13 Then PD.SetFocus
```

```
End Sub
```

LAMPIRAN D
DATASHEET