

## DATA KELAS

KODE KELAS	NAMA KELAS
1	I A
2	I B
3	I C
4	II A
5	II B
6	III A
7	III B
8	IV
9	V A
10	V B
11	VI A
12	VI B

Kepala Sekolah,

Hj. KARTINI,S.Pd  
Pembina  
NIP. 19610227 198011 2 001

Lampiran A-1  
Data Kelas

## DATA PELAJARAN

KODE PELAJARAN	NAMA PELAJARAN
P0001	AGAMA
P0002	PKN
P0003	BAHASA INDONESIA
P0004	IPA
P0005	IPS
P0006	SBK
P0007	BAHASA INGGRIS
P0008	TIK

Kepala Sekola,

Hj. KARTINI,S.Pd  
Pembina  
NIP. 19610227 198011 2 001

Lampiran A-2  
Data Pelajaran

## DATA SISWA

Nama : DANI ISKANDAR  
Alamat : Jl. Depati Amir No. 145  
Nomor HP : 08526733464  
Kelas : II

Mengetahui  
Kepala Sekolah

Pangkalpinang, 14 Juli 2012  
Wali Murid




Hj. KARTINI ,S.Pd  
Pembina  
NIP. 19610227 198011 2 001

ALDY

Lampiran A-3  
Data Siswa



## DATA KELAS

No	Kode_Kelas	Nama_Kelas
99	X-5-X	X-15-X
		
99	X-5-X	X-15-X

Pangkalpinang, dd/mm/yyyy  
Kepala Sekolah

( )

Lampiran B - 2  
Data Kelas

# Lampiran B

## Rancangan Masukan

PEMERINTAH KOTA PANGKALPINANG  
DINAS PENDIDIKAN  
SEKOLAH DASAR NEGERI 20

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DATA PELAJARAN

No	Kode_Pelajaran	Nama_Pelajaran
99	X-5-X	X-20-X
99	X-5-X	X-20-X

Pangkalpinang, dd/mm/yyyy  
Kepala Sekolah

( )

Lampiran B - 3  
Data Pelajaran





PEMERINTAH KOTA PANGKALPINANG  
DINAS PENDIDIKAN  
SEKOLAH DASAR NEGERI 20

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DATA NILAI SISWA

No\_Kegiatan : x-5-x Tanggal : x-10-x

Semester : x-2-x Tahun Pelajaran : x-9-x

NIS	Kode_Pelajaran	Jenis Kegiatan	Nilai
X-10-X	X-5-X	X-15-X	X-5-X
X-10-X	X-5-X	X-15-X	X-5-X

Pangkalpinang, dd/mm/yyyy  
Kepala Sekolah

( )

Lampiran B - 5  
Data Nilai Siswa

# Lampiran C

## Listing Program

## 1. Listing SMSServer.java

### LISTING PROGRAM

```
2. package com.shopanddrive.controller.server;
3. import java.io.IOException;
4. import java.io.InputStream;
5. import java.io.OutputStream;
6. import java.util.Enumeration;
7. import java.util.StringTokenizer;
8. import java.util.TooManyListenersException;
9. import java.util.regex.Pattern;
10. import javax.comm.CommPortIdentifier;
11. import javax.comm.PortInUseException;
12. import javax.comm.SerialPort;
13. import javax.comm.SerialPortEvent;
14. import javax.comm.SerialPortEventListener;
15. import javax.comm.UnsupportedCommOperationException;
16. import javax.swing.JOptionPane;
17.
18. public class SMSServer {
19.     private Pattern    pattern;
20.     private byte[]     bacaBuffer  = new byte[100000];
21.     SerialPort        port        = null;
22.     Enumeration        portList   = null;
23.     CommPortIdentifier portId     = null;
24.     InputStream        input;
25.     OutputStream       output;
26.     public static int  nilaiBaud   = 19200; // Nilai Baud Rate
27.     public static int  nilaiData   = SerialPort.DATABITS_8; // Nilai DATABITS
28.     public static int  nilaiStop   = SerialPort.STOPBITS_1; // Nilai STOPBITS
29.     public static int  nilaiParity = SerialPort.PARITY_NONE; // Nilai PARITY
30.     public static int  nilaiFlow   = SerialPort.FLOWCONTROL_NONE; // Nilai
FLOWCONTROL
31.     private StringBuffer pesanPDUKirim = null;
```

```

32. public static String portName      = "";
33. private String      PduPesan      = null;
34. private String      infoSmsc      = null;
35. private String      panjangNotlp  = null;
36. private String      Notlp         = null;
37. private String      dapatNotlp    = null;
38. private String      panjangPesan  = null;
39.   private String      pesanPDU     = null;
40.   private String      pesan        = null;
41.   public String      respons;
42.   private String[]   hasil;
43.   private String[]   items;
44.   private int        udh=0;
45.   private int        panjangNotlpTujuan = 0;
46.   private int        panjangPesanKirim    = 0;
47.   private int        nomorSmsc           = 0;
48.   private int        nilaiPanjangNotlp    = 0;
49.   private int        nilaiNotlp          = 0;
50.   private int        nilaiPanjangPesan    = 0;
51.   private int        Index;
52.   private int        PDU                 = 0;
53.   private int        panjangKarakter     = 0;
54.   private int        flag                 = 0;
55.   private int        i                    = 0;
56.   private boolean    status               = false;
57.   private int        bufferOffset         = 0;
58.   private int        nilaiSmsc           = 0;
59.   private int        n;
60.   private StringTokenizer st;
61.   private StringBuffer stringBuffer      = null;
62.   private InterfaceSMS in = null;
63.
64.   public SMSServer(InterfaceSMS in){
65.       this.in = in;
66.   }

```

```

67. public boolean getStatus(){
68.     return this.status;
69. }
70. public void setNilaiBaud(int baud){
71.     nilaiBaud = baud;
72. }
73. public String getNilaiBaud(){
74.     return String.valueOf(nilaiBaud).toString();
75. }
76. public void setPortName(String name){
77.     portName = name;
78. }
79. public String getPortName(){
80.     return portName;
81. }
82. public void setListProses(String msg){
83.     in.responTerminal(msg);
84. }
85. public void setUdh(int udh){
86.     this.udh = udh;
87. }
88.
89. public void kirimAT(String atCmd, int delay) {
90.     Boolean tungguDelay = true;
91.     boolean getDelay = false;
92.     // Membuat antrian proses
93.     synchronized (tungguDelay) {
94.         try{
95.             // Menulis AT Command
96.             output.write( (atCmd).getBytes());
97.             output.flush();// Hapus OutputStream
98.         }catch (IOException e) {
99.             System.out.println (e.getMessage());
100.        }
101.        try{

```

```

102.         tungguDelay.wait(delay);
103.     }catch (InterruptedException ie){
104.         System.out.println (ie.getMessage());
105.         getDelay = true;
106.     }
107. }
108. }
109.
110. public void terimaAT(String buffer) {
111.     // Menguraikan buffer berdasarkan karakter CRLF
    st = new StringTokenizer(buffer, "\r\n");
112.     while (st.hasMoreTokens()) {
113.         // mengambil token yang ada pada obyek
114.         respons = st.nextToken();
115.         // Cetak respon ke layar
116.         if(in!=null){
117.             in.responTerminal(respons);
118.         }
119.         // MelistProses respon yang diterima
120.         try {
121.             // Jika Ada Telepon yang Masuk
122.             if (respons.startsWith("RING")){
123.                 kirimAT("ATH0" + "\15", 100);
124.             } // Akhir if "RING"
125.             else if (respons.startsWith("+CMT1:")){
126.                 Pattern pattern = Pattern.compile(",");
127.                 hasil = pattern.split(respons.trim());
128.                 Index = Integer.parseInt(hasil[1].trim());
129.                 kirimAT("AT+CMGR=" + Index + "\15", 1250);
130.             }
131.             else if (respons.startsWith("+CMGR:")) {
132.                 PDU = 1;
133.             }
134.             else if (respons.startsWith("+CMGL")) {
135.                 Pattern pattern = Pattern.compile(":");

```

```

136.     hasil = pattern.split(respons.trim());
137.     pattern = Pattern.compile(",");
138.     hasil = pattern.split(hasil[1].trim());
139.     Index = Integer.parseInt(hasil[0].trim());
140.     PDU = 1;
141.     }
142.     else if (PDU == 1) {
143.         prosesTerimaSms(Index, respons.trim());
144.         PDU = 0;
145.     }
146.         else if(respons.startsWith("+CNMI")) {
147.             Pattern pattern = Pattern.compile(":");
148.             hasil = pattern.split(respons.trim());
149.             String cnmi=hasil[1].trim();
150.             ParsingCNMI parsing=new ParsingCNMI(cnmi);
151.             parsing.parsing();
152.             kirimAT("AT+CNMI=" + parsing.getCNMI() + "\15", 1250);
153.         }
154.     else {}
155. }
156. catch (Exception e) {}
157. }
158. }
159.
160. public void setTerminal() {
161.     // Mencari daftar port-port yang tersedia
162.     Enumeration portList = CommPortIdentifier.getPortIdentifiers();
163.     while (portList.hasMoreElements()) {
164.         // Mengambil nilai-nilai port yang ditemukan
165.         CommPortIdentifier portId = (CommPortIdentifier)
portList.nextElement();
166.         // Hanya Port Serial yang diambil
167.         if (portId.getPortType() == CommPortIdentifier.PORT_SERIAL) {
168.             // Buka port berdasarkan nama port yang telah ditentukan
169.             if (portId.getName().equals(portName)) {

```

```

170.         try {
171.             port = (SerialPort)
portId.open("APLIKASI KESISWAAN BERBASIS SMS GATEWAY", 300);
172.         if(in != null) {
173.             in.responTerminal("Server sdfds Sedang Mencoba
Membuka Port "+portName+"...");
174.             System.out.println("Server Sedang Mencoba
Membuka Port "+portName+"...");
175.         }
176.         Break;
177.     }
178.     catch (PortInUseException piue) {
179.         if(in != null) {
180.             in.responTerminal("Port Sedang Digunakan Oleh
Sistem Lain!!!");
181.             System.out.println("PORT SEDANG DIGUNAKAN
OLEH SISTEM LAIN ");
182.         }
183.     }
184. }
185. }
186. }
187. // Membuka input dan output Stream pada Port
188. try {
189.     output = port.getOutputStream();
190.     input = port.getInputStream();
191. }
192. catch (IOException ioe) {
193.     JOptionPane.showMessageDialog(null,"Gagal Membuka Stream pada
metode setTerminal class: ServerSMS\n Kesalahan Pada : " +
ioe.getMessage(),"ERROR INFORMATION",JOptionPane.ERROR_MESSAGE);
194.     if(in != null) {
195.         in.responTerminal("Gagal Membuka Stream...");
196.         in.responTerminal("Terjadi kesalahan pada : "+ioe);
197.         in.responTerminal("Server Sedang Mencoba Membuka Port

```



```

"+portName+"...");
198.         System.out.println("Gagal Membuka Stream... Terjadi kesalahan
pada : "+ioe);
199.     }
200. }
201.
202. // Mengatur Konfigurasi dari Serial Port
203. try {
204.     port.setSerialPortParams(nilaiBaud, nilaiData, nilaiStop, nilaiParity);
205.     port.setFlowControlMode(nilaiFlow);
206.     // Menerima pemberitahuan jika ada data pada terminal
207.     port.notifyOnDataAvailable(true);
208.     // Cetak pesan ke layar
209.     if(in != null) {
210.         in.responTerminal("Server Melakukan Hubungan ke Port : " +
portName);
211.         in.responTerminal("Server Berhasil Terhubung ke Port : " +
portName);
212.         in.responTerminal("Server Sedang melakukan Pengaturan
Terminal");
213.         in.responTerminal("Tunggu Sebentar...");
214.         System.out.println("Server Berhasil Terhubung ke Port : " +
portName);
215.     }
216.
217. // Melakukan pengatur TERMINAL
218.     kirimAT("AT" + "\15", 1250);
219.     kirimAT("AT+CBC" + "\15", 1250);
220.     kirimAT("AT+CSQ" + "\15", 1250);
221.     kirimAT("AT+CGMI" + "\15", 1250);
222.     kirimAT("AT+GMM" + "\15", 1250);
223.     kirimAT("AT+CGSN" + "\15", 1250);
224.     kirimAT("AT+CMGF=0" + "\15", 1250);
225.     kirimAT("AT+CSCS=\\"GSM\\" + "\15", 1250);
226.     kirimAT("AT+CNMI=?" + "\15", 1250);

```

```

227.         kirimAT("AT+CPMS=\\"ME\\" + "\15", 1250);
228.     kirimAT("AT+CMGL=0" + "\15", 1250);
229.     String jamBuka = new java.text.SimpleDateFormat("dd-MM-yyyy
hh:mm:ss ").format(new java.util.Date());
230.         if(in != null) {
231.             in.responTerminal("PORT "+portName+ " Berhasil Dibuka...");
232.             in.responTerminal("Koneksi Berhasil Dilakukan Pada :
"+jamBuka);
233.             status = true;
234.         }
235.     } //Akhir try serial port
236.     catch (UnsupportedCommOperationException ucoe) {
237.         if(in != null) {
238.             in.responTerminal("Pengaturan Data serial Port Gagal...");
239.             in.responTerminal("PORT "+portName+" Gagal Dibuka...");
240.             in.responTerminal("Koneksi Gagal, Error Pada :
"+ucoe.getMessage());
241.         }
242.     }
243.
244.     // Menambahkan Event Listener pada Serial Port
245.     try {
246.         port.addListener(new SerialPortEventListener() {
247.             public void serialEvent(SerialPortEvent event) {
248.                 try {
249.                     // Apabila ada respons dari terminal, lakukan
pembacaan
250.                     while ( (n = input.available()) > 0) {
251.                         n = input.read(bacaBuffer, bufferOffset, n);
252.                         bufferOffset += n;
253.                         // Jika ada respons "\15" (Line Feed Carriage
Return),
254.                         if ( (bacaBuffer[bufferOffset - 1] == 10) &&
(bacaBuffer[bufferOffset - 2] == 13)){
255.                             String buffer = new String(bacaBuffer, 0,

```

```

bufferOffset - 2);
256.         // Berikan ke metode terimaAT
257.         terimaAT(buffer);
258.         bufferOffset = 0;
259.     }
260.     }
261.     }
262.     catch (IOException e) { }
263. }
264. });
265. }
266. catch (TooManyListenersException tmle) {
267.     if(in != null) {
268.         in.responTerminal("Terjadi Kesalahan Pada : "+tmle);
269.     }
270. }
271. }
272.
273. public void prosesTutup() {
274.     try {
275.         if(port != null){
276.             port.close();
277.             status = false;
278.         }
279.     }catch(Exception e) {
280.         e.printStackTrace();
281.     }
282. }
283.
284. public void prosesTerimaSms(int Index, String Pdu) {
285. try {
286.     // ubah dari format PDU menjadi Format Teks
287. pduTerimaSms(Pdu);
288. } // Akhir try
289. catch (Exception e) {}

```

```

290.
291.     if (dapatNotlp.endsWith("F")) {
292.         // Buang karakter "F"
293.         dapatNotlp = dapatNotlp.substring(0, dapatNotlp.length() - 1);
294.     }
295.     // Hapus Pesan yang Telah dibaca
296.     kirimAT("AT+CMGD=" + Index + "\15", 1250);
297.     Thread t = new Thread(){
298.         public void run(){
299.             if(in != null) {
300.                 in.pesanSMSMasuk(dapatNotlp,pesan);
301.             }
302.         }
303.     };
304.     t.start();
305. }
306.
307. private void pduTerimaSms(String smpdu) {
308.     int i = 0;
309.     try {
310.         infoSmsc = smpdu.substring(i, 2);
311.         nilaiSmsc = Integer.parseInt(infoSmsc, 16);
312.         i = i + 4;
313.         nomorSmsc = i + (nilaiSmsc * 2) - 2;
314.         i = nomorSmsc;
315.         String pduType = String.valueOf(smpdu.substring(i,i+1));
316.         String binerPduType = ubahHexaKeBiner(pduType);
317.         udh = Integer.parseInt(binerPduType.substring(1,2));
318.         i = i + 2;
319.         panjangNotlp = smpdu.substring(i, i + 2);
320.         nilaiPanjangNotlp = Integer.parseInt(panjangNotlp, 16);
321.         i = i + 4;
322.         nilaiNotlp = i + nilaiPanjangNotlp + nilaiPanjangNotlp % 2;
323.         Notlp = smpdu.substring(i, nilaiNotlp);
324.         dapatNotlp = balikKarakter(Notlp);

```

```

325.     i = nilaiNotlp;
326.     i = i + 18;
327.     panjangPesan = smpdu.substring(i, i + 2);
328.     nilaiPanjangPesan = Integer.parseInt(panjangPesan, 16);
329.     i = i + 2;
330.     pesanPDU = smpdu.substring(i, smpdu.length());
331.     pesan = delapanKeTujuhBit(pesanPDU, udh);
332.     }
333.     catch (Exception e) {
334.         System.out.println(e.getMessage());
335.     }
336. }
337.
338. /*
339.  * Proses kirim sms terminal ke hp
340. */
341. public void prosesKirimSms(String notlp, String pesan) {
342.     try {
343.         String pesanPDUKirim="";
344.         if(udh == 1){
345.             pesanPDUKirim = pduKirimSms(notlp.trim(), pesan.trim());
346.         }else{
347.             pesanPDUKirim = pduKirimSmsTanpaUDH(notlp.trim(),
pesan.trim());
348.         }
349.         System.out.println ("Pesan dikirim : "+pesanPDUKirim);
350.         // Proses Mengirim Pesan
351.         kirimAT("AT+CMGS=" + (pesanPDUKirim.length() / 2) + "\15", 500);
352.         kirimAT("00" + pesanPDUKirim, 2500);
353.         kirimAT("\032", 100);
354.         Thread.currentThread().sleep(5000);
355.     }
356.     catch (Exception e) {
357.         System.out.println (e.getMessage());
358.         if(in != null) {

```

```

359.             in.responTerminal("Error Mengirim Pesan : "+e);
360.     }
361.     }
362. }
363.
364. /*
365.  * Konversi kirim sms dari program dalam format komputer(ASCII)
366.  * kedalam format PDU(GSM) -> PDU menggunakan UDH
367.  */
368. private String pduKirimSms(String notlp, String pesan) {
369.     pesanPDUKirim = new StringBuffer(320);
370.     pesanPDUKirim.append("51");
371.     pesanPDUKirim.append("00");
372.     panjangNotlpTujuan = notlp.length();
373.     pesanPDUKirim.append(rubahKeHexa(panjangNotlpTujuan));
374.     pesanPDUKirim.append("91");
375.     if ( (notlp.length() % 2) == 1) {
376.         notlp = balikKarakter(notlp + "F");
377.     }
378.     else {
379.         notlp = balikKarakter(notlp);
380.     }
381.     pesanPDUKirim.append(notlp);
382.     pesanPDUKirim.append("00");
383.     pesanPDUKirim.append("11");
384.     pesanPDUKirim.append("AA");
385.     panjangPesanKirim = pesan.length()+8;
386.     PduPesan = tujuhKeDelapanBit(pesan);
387.     pesanPDUKirim.append(rubahKeHexa(panjangPesanKirim));
388.     pesanPDUKirim.append("06050414141414");
389.     pesanPDUKirim.append(PduPesan);
390.
391.     return new String(pesanPDUKirim);
392. }
393.

```

```

394. private String pduKirimSmsTanpaUDH(String notlp, String pesan) {
395.     pesanPDUKirim = new StringBuffer(320);
396.     pesanPDUKirim.append("11");
397.     pesanPDUKirim.append("00");
398.     panjangNotlpTujuan = notlp.length();
399.     pesanPDUKirim.append(rubahKeHexa(panjangNotlpTujuan));
400.     pesanPDUKirim.append("91");
401.     if ( (notlp.length() % 2) == 1) {
402.         notlp = balikKarakter(notlp + "F");
403.     }
404.     else {
405.         notlp = balikKarakter(notlp);
406.     }
407.     pesanPDUKirim.append(notlp);
408.     pesanPDUKirim.append("00");
409.     pesanPDUKirim.append("00");
410.     pesanPDUKirim.append("AA");
411.
412.     panjangPesanKirim = pesan.length();
413.     PduPesan = tujuhKeDelapanBit(pesan);
414.     pesanPDUKirim.append(rubahKeHexa(panjangPesanKirim));
415.     pesanPDUKirim.append(PduPesan);
416.
417.     return new String(pesanPDUKirim);
418. }
419.
420. /*
421. * Proses membalikkan karakter string
422. * misal : sobi -> osib
423. */
424. public String balikKarakter(String karakter) {
425.     panjangKarakter = karakter.length();
426.     stringBuffer = new StringBuffer(panjangKarakter);
427.     for (int i = 0; (i + 1) < panjangKarakter; i = i + 2) {
428.         stringBuffer.append(karakter.charAt(i + 1));

```

```

429.         stringBuffer.append(karakter.charAt(i));
430.     }
431.     return new String(stringBuffer);
432. }
433.
434.     private static char[] hexa;
435.     private static char[] karakter;
436.
437.     /*
438.      * Method merubah string ke dalam bentuk hexa
439.     */
440.     public String rubahKeHexa(int a) {
441.         char[] hexa = { '0', '1', '2', '3', '4', '5', '6', '7', '8', '9', 'A', 'B', 'C', 'D', 'E', 'F' };
442.         karakter = new char[2];
443.         // Mengambil hanya 8 bit 255d = 11111111 b
444.         a = a & 255;
445.         // hasil pembagian dengan 16
446.         karakter[0] = hexa[a / 16];
447.         // sisa hasil pembagian dengan 16
448.         karakter[1] = hexa[a % 16];
449.
450.         return new String(karakter);
451.     }
452.
453.     private static int ubahBinerKeDesimal(String biner){
454.         int dec=0;
455.         int nilBit [] = {1,2,4,8,16,32,64,128};
456.         for(int i= 0;i<biner.length();i++){
457.             int tempBit = Integer.parseInt(String.valueOf(biner.charAt(i)));
458.             if(tempBit==1){
459.                 dec = dec + nilBit[(biner.length()-1)-i];
460.             }
461.         }
462.         return dec;
463.     }

```



```

464.     private static String ubahHexaKeBiner(String hex){
465.         String hasil = "";
466.         String hexa[] = ("0","1","2","3","4","5","6","7","8","9","A","B","C",
"D","E","F");
467.         String biner[] = {"0000","0001","0010","0011","0100","0101","0110",
"0111","1000","1001","1010","1011","1100","1101","1110","1111"};
468.
469.         for (int i=0;i<hex.length();i++){
470.             boolean flag = false;
471.             for(int z=0;z<hexa.length;z++){
472.                 if(String.valueOf(hex.charAt(i)).equalsIgnoreCase(hexa[z])){
473.                     hasil = hasil + biner[z];
474.                     break;
475.                 }
476.             }
477.         }
478.         return hasil;
479.     }
480.
481.     public String tujuhKeDelapanBit(String pesan) {
482.         StringBuffer msg = new StringBuffer(320);
483.         String hasil = "", curRbit="",curLbit="",tempBiner, tempBinerNext="",
tempHex,tempHexNext="";
484.         String binerOktet, hasilHexa;
485.         char charTemp,charTempNext;
486.         int dec, decNext,hasilDec, jmlRbit=0;
487.
488.         for(int i = 0; i<pesan.length();i++){
489.             if(jmlRbit==0){
490.                 charTemp = pesan.charAt(i);
491.                 dec = (int) (charTemp);
492.                 tempHex = rubahKeHexa(dec);
493.                 tempBiner = ubahHexaKeBiner(tempHex).substring(1, 8);
494.                 curLbit = tempBiner.substring(0,tempBiner.length()-jmlRbit);
495.                 i++;

```

```

496.     }
497.
498.     if(pesan.length()>1 && !=pesan.length()){
499.         charTempNext = pesan.charAt(i);
500.         decNext = (int) (charTempNext);
501.         tempHexNext = rubahKeHexa(decNext);
502.         tempBinerNext = ubahHexaKeBiner(tempHexNext).substring(1,
503.             8);
504.         curRbit = tempBinerNext.substring(tempBinerNext.length()-
505.             (jmlRbit+1), tempBinerNext.length());
506.     }
507.     binerOktet = curRbit + curLbit;
508.     if(pesan.length()>1 && !=pesan.length() ){
509.
510.
511.
512.
513.
514.
515.
516.
517.
518.
519.
520.
521.
522.
523.
524.
525.

```

curLbit =

```

tempBinerNext.substring(0,tempBinerNext.length()(jmlRbit+1));
}
hasilDec = ubahBinerKeDesimal(binerOktet);
hasilHexa = rubahKeHexa(hasilDec);
msg.append(hasilHexa);
jmlRbit++;
if(jmlRbit==7){
    jmlRbit = 0;
    curRbit = "";
}
// jika sudah pada akhir isi pesan
if(i==pesan.length()-1){
    System.out.println(curLbit);
    hasilDec = ubahBinerKeDesimal(curLbit);
    hasilHexa = rubahKeHexa(hasilDec);
    msg.append(hasilHexa);
}
}

```

```

526.  hasil = msg.toString();
527.    return hasil;
528.  }
529.
530.  private static char[] gsmToAsciiMap; // GSM ==> ASCII
531.
532.  public static String delapanKeTujuhBit(String pesan, int udh) {
533.      String hasil = ""; int jumLbit=1,dec=0;
534.      StringBuffer msg = new StringBuffer(160);
535.      String curLbit = "";
536.      String tempHex;
537.      char c ;
538.
539.      for(int i=0;i<pesan.length(); i=i+2){
540.          tempHex = pesan.substring(i,i+2);
541.          String bitTempHex1 = ubahHexaKeBiner(tempHex.substring(0,1));
542.          String bitTempHex2 = ubahHexaKeBiner(tempHex.substring(1,2));
543.          String delapanBit = bitTempHex1 + bitTempHex2;
544.          if (jumLbit>8) jumLbit = 1;
545.
546.          if(jumLbit==1){
547.              dec= ubahBinerKeDesimal(delapanBit.substring(1,
delapanBit.length()));
548.              curLbit = delapanBit.substring(0,1);
549.              jumLbit ++;
550.          }
551.          else{
552.              dec = ubahBinerKeDesimal(delapanBit.substring(jumLbit,
delapanBit.length()+curLbit));
553.              curLbit = delapanBit.substring(0, jumLbit);
554.              jumLbit ++;
555.          }
556.          if(dec!=10 || dec!=13){

```

```

557.         c = (char) (dec);
558.         c = gsmToAsciiMap[c];
559.         msg.append(c);
560.     }
561.     if(jumLbit==8){
562.         dec = ubahBinerKeDesimal(curLbit);
563.         if (dec!=10 || dec!=13){
564.             c = (char) (dec);
565.             c = gsmToAsciiMap[c];
566.             msg.append(c);
567.         }
568.         curLbit = "";
569.         jumLbit=1;
570.     }
571.
572.     if (udh==1){
573.         hasil = msg.toString().substring(7);
574.     }else{
575.         hasil = msg.toString();
576.     }
577.     return hasil;
578.
579.     static {
580.         final int lastindex = 255;
581.         gsmToAsciiMap = new char[lastindex + 1];
582.         int i;
583.         for (i = 0; i <= lastindex; i++) {
584.             gsmToAsciiMap[i] = (char) i;
585.         }
586.     }
587. }

```

# Lampiran D

## Surat Keterangan Riset



PEMERINTAH KOTA PANGKALPINANG  
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**SEKOLAH DASAR NEGERI 20**

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SURAT KETERAN

No : 10 / SDN20 / II / 2012

Yang bertanda tangan di bawah ini :

Nama : Hj. KARTINI,S.Pd  
NIP : 19610227 198011 2 001  
JABATAN : Kepala Sekolah

menerangkan bahwa :

Nama : SAMSUDIN  
NIM : 1011500186

Telah melaksanakan riset dan penelitian pada bagian Tata Usaha SD Negeri 20 Pangkalpinang sejak tanggal 01 November 2012 s/d 31 Januari 2013 dengan Baik.

Dibuat di : Pangkalpinang  
Tanggal : 01 Februari 2013  
Kepala Sekolah

**Hj. KARTINI, S.Pd**  
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