## Cara Menjalankan Program

## Aplikasi Pengenalan Bahasa Bakumpai Berbasis Android

Untuk menjalankan program dari aplikasi ini, terlebih dahulu kita harus menginstal software-software pendukung, yaitu :

- JDK (Java Development Kit)
- Android SDK
- Editor Eclipse
- ADT Plugin (Plugin pada Eclipse)
- SQLite Manager (Plugin pada Mozilla Firefox)

Pada android SDK, kita perlu menginstal versi android 2.3.3 (Gingerbread) dan 4.2.2 (Jellybean), karena pada saat program ini dibuat, target dari versi android nya adalah 4.2.2 dan minimal versi androidnya adalah 2.3.3, apabila kita belum menginstal versi android tersebut di dalam android SDK, maka program ini nantinya tidak dapat kita jalankan. Untuk cara menginstal software-software pendukung tersebut, sudah banyak dibahas pada forum-forum maupun situs-situs di internet.

Setelah semua software-software tersebut terinstal dengan baik, kita tinggal menjalankan programnya menggunakan editor eclipse. Ada 2 tahap yang perlu kita lakukan, yaitu pertama melakukan proses import program ke dalam editor eclipse dan kedua proses menjalankan program menggunakan AVD (android virtual device). Berikut tahapan-tahapannya:

## 1. Mengimport program ke dalam editor eclipse

Langkah-langkahnya sebagai berikut :

- Jalankan eclipse, dengan mengklik icon eclipse pada folder dimana anda meletakkan hasil ekstrak sebelumnya.

|                        |  | eclipse           |                    |        |  |  |  |
|------------------------|--|-------------------|--------------------|--------|--|--|--|
| File Home Share View   |  |                   |                    |        |  |  |  |
| 🖻 🕘 + 🕈 📕 🛛 Computer i | DATA (D:) + Android + eclipse +  |                   |                    |        |  |  |  |
| Favorites              | Name   | Date modified     | Туре               | Size   |  |  |  |
| E Desktop              | 3 configuration  | 8/11/2013 1:26 AM | File folder        |        |  |  |  |
| 🗽 Downloads            | dropins  | 2/3/2013 4:02 AM  | File folder        |        |  |  |  |
| 3 Recent places        | 📕 features   | 6/21/2013 3:34 AM | File folder        |        |  |  |  |
|                        | 5q 📕   | 6/21/2013 3:12 AM | File folder        |        |  |  |  |
| Jubraries              | plugins  | 6/21/2013 3:54 AM | File folder        |        |  |  |  |
| Documents              | 🎍 readme   | 2/5/2013 4:02 AM  | File folder        |        |  |  |  |
| Music                  | .eclipseproduct  | 2/5/2013-2-25 AM  | ECLIPSEPRODUCT     | 1.65   |  |  |  |
| Pictures               | artifacts  | 6/21/2013 3:54 AM | 30ML File          | 120 KB |  |  |  |
| H Videos               | eclipse  | 2/5/2013 3:05 AM  | Application        | 305 KB |  |  |  |
|                        | Q   eclipse  | 6/21/2013 3:54 AM | Configuration sett | 1 K.B  |  |  |  |
| Computer               | C eclipsec   | 2/5/2013 3:05 AM  | Application        | 18 KB  |  |  |  |
| Local Disk (C:)        | 🧱 ept-v10  | 2/5/2013 2:28 AM  | HTML File          | 17 KB  |  |  |  |
|                        | Contract of the second se | 200/2007 3:20 244 | LOTAN ED.          | 0.40   |  |  |  |

 Setelah selesai masuk ke dalam eclipse, kemudian kita import program aplikasi pengenalan bahasa bakumpai dari folder dimana kita meletakkan program tersebut (pada CD ini diletakkan pada folder source) dengan cara klik File → import pada toolbar seperti berikut.

| 0          |                            |                  |         |     |                |            |           |           | Java - E    | clipse SDK       |              |                     |                     |             |         |                      | -     | ٥    | ×        |
|------------|----------------------------|------------------|---------|-----|----------------|------------|-----------|-----------|-------------|------------------|--------------|---------------------|---------------------|-------------|---------|----------------------|-------|------|----------|
| File       | Edit Refactor Source N     | avigate Search P | Project | Run | Window H       | elp        |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | New                        | Alt+Shift+N ►    | X       | 莎・  | Q = Q =        | 10 1       | • 2 +     | 智 🔹 🌾     | • 🔶 🔹 🔿     |                  |              |                     |                     | Quick Acces | 5       | 📑 🛛 Java EE          | 🔊 DDM | s 🐉. | Java     |
|            | Open File                  |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             | PE Out  | 100.57               |       | -    |          |
|            | Close                      | Ctrl+W           |         |     |                |            |           |           |             |                  |              |                     |                     |             | An outi | ine is not available |       |      | 8        |
|            | Close All                  | Ctrl+Shift+W     |         |     |                |            |           |           |             |                  |              |                     |                     |             | Allouti |                      |       |      | <b>6</b> |
|            | Save                       | Ctrl+S           |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Save As                    |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Save All                   | Ctrl+Shift+S     |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Revert                     |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Move                       |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Rename                     | F2               |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
| 8          | Refresh                    | F5               |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Convert Line Delimiters To | +                |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
| 2          | Print                      | Ctrl+P           |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Switch Workspace           | +                |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Restart                    |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
| <u>e s</u> | Import                     |                  | 1       |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
| ⊿          | Export                     |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Properties                 | Alt+Enter        |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            | Exit                       |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
| -          |                            |                  | -       |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            |                            |                  |         |     | roblame @      | Invadoc    | Declar    | ation 🖃   | Consolo     | E Prograss       | Diocat       | M Sile Ev           | mlorer 🗖 Lint M     | aminge      |         |                      |       | -    |          |
|            |                            |                  |         |     |                | Javadoc    | De Decial | auon 👾    | Console     | -01 logiess      | P Logoat     | PA INFINE LA        |                     | arringa     |         |                      |       |      |          |
|            |                            |                  |         | Sa  | ved Filters 🚦  | - 🖉        | Search fo | or messag | es. Accepts | lava regexes. Pr | fix with pic | d:, app:, tag: or t | ext: to limit scope |             |         | verbose 🖌 🔒          | B 🗆 , | F    |          |
|            |                            |                  |         | A   | ll messages (n | o filters) | Level     | Time      |             | PID              | TID          | Application         |                     |             | Tag     |                      |       |      |          |
|            |                            |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             |         |                      |       |      |          |
|            |                            |                  |         |     |                |            | <         |           |             |                  |              |                     |                     |             |         |                      |       | >    |          |
|            |                            |                  |         |     |                |            |           |           |             |                  |              |                     |                     |             | Android | SDK Content Loade    |       |      |          |

Kemudian akan muncul dialog box seperti dibawah ini.

| 0   | Import   | - 🗆 🗙  |
|---|--|--------|
| Select  |  | Ľ      |
| Select an im<br>type filter tr<br>Gen<br>Gen<br>Gen<br>CVS<br>CVS<br>CVS<br>CVS<br>CVS<br>CVS<br>CVS<br>CVS<br>CVS<br>CVS | port source:<br>ext<br>eral<br>Archive File<br>Existing Projects into Workspace<br>File System<br>Preferences<br>Iroid<br>Existing Android Code Into Workspace<br>all<br>g-in Development<br>/Debug<br>m |        |
| ?   | < <u>B</u> ack <u>N</u> ext > <u>F</u> inish   | Cancel |

 Pilih "Existing Android Code Into Workspace" pada folder Android, kemudian klik Next. Maka akan mucul dialog box seperti berikut.

| Import Projects         Import Projects         Root Directory:         Projects:         Project to Import         New Project Name         Second projects         Import Project to Import         New Project Name         Second projects         Working sets         Add project to working sets         Working sets:         Verking sets:         Verking sets:  | □ ×         |
|--|-------------|
| Root Directory:       B         Projects:       Project to Import         New Project Name       S         Operation       Dee         Copy projects into workspace       Image: Copy projects into workspace         Working sets       Vorking sets         Working sets:       V  | 0           |
| Project to Import     New Project Name     S       De     Image: Second Seco | Browse      |
| Copy projects into workspace       Working sets       Add project to working sets       Working sets:  | elect All   |
| Copy projects into workspace Working sets Working sets Working sets V Select   | eselect All |
| Copy projects into workspace Working sets Working sets Vorking sets Vorking sets Vorking sets  | Refresh     |
| Copy projects into workspace Working sets Add project to working sets Working sets: Select   |             |
| Copy projects into workspace Working sets Add project to working sets Working sets: V Select   |             |
| Working sets       Working sets       Working sets   |             |
| Add project to working sets           Working sets:         V         Select   |             |
| Working sets: V Selec  |             |
|  | ct          |
|  |             |
|  |             |
|  |             |
| (?) < <u>Back</u> <u>Next</u> > <u>Finish</u> Ca   | ancel       |

 klik browse untuk memilih folder project aplikasi pengenalan bahasa bakumpai.

| Browse For Folder                |   |  |  |  |  |
|----------------------------------|---|--|--|--|--|
|                                  |   |  |  |  |  |
|                                  | _ |  |  |  |  |
| 4 🍌 PengenalanBahasaBakumpai     | ^ |  |  |  |  |
| 🌗 .settings                      |   |  |  |  |  |
| D assets                         |   |  |  |  |  |
| > 🌗 bin                          |   |  |  |  |  |
| > 퉱 gen                          |   |  |  |  |  |
| ibs 🔒                            |   |  |  |  |  |
| > 🍶 res                          | ¥ |  |  |  |  |
| Folder: PengenalanBahasaBakumpai |   |  |  |  |  |
| Make New Folder OK Cancel        |   |  |  |  |  |

kemudian klik ok apabila folder program tersebut sudah ditemukan. Apabila benar, maka di dalam table sudah tercentang project yang telah kita pilih tadi seperti dibawah ini.

| ۲  |   | - <b>-</b> × |
|--|---|--------------|
| Import Projects<br>Select a directory to search for existing A                               | indroid projects                        | 0            |
| Root Directory: Change Statistics  | n - Luig - 2 PDF Chaire 2 SOURCE\Penger | Browse       |
| Project to Import  | New Project Name                        | Select All   |
| Dùdata bulichi comerter@ickrinci   | PengenalanBahasaBakumpai                | Deselect All |
|  |   | Refresh      |
| Copy projects into workspace<br>Working sets<br>Add project to working sets<br>Working sets: | v) 5                                    | glect        |
| ? < gack   | Next > Einish                           | Cancel       |

Setelah itu klik finish.

Maka pada Package Explorer di jendela Workspace akan terlihat project "PengenalanBahasaBakumpai" yang telah kita importkan tadi.



## 2. menjalankan program menggunakan AVD (android virtual device).

Berikut langkah-langkahnya :

 Membuat AVD dengan memilih Window → Android Virtual Device Manager pada Menu bar atau bisa mengklik icon Android Virtual Device Manager pada toolbar.



Setelah itu akan muncul kotak dialog untuk seperti dibawah ini.

| 1.1100.10               |                                  |                       |                   |         |          |
|-------------------------|----------------------------------|-----------------------|-------------------|---------|----------|
| idroid Virtual Devices  | Device Definitions               |                       |                   |         |          |
| ist of existing Android | d Virtual Devices located at     | C:\Users\Muhama       | d Gazali\.android | l∖avd   |          |
| AVD Name                | Target Name                      | Platform              | API Level         | CPU/ABI | New      |
|                         | No AVD available                 |                       |                   |         | Edit     |
|                         |                                  |                       |                   |         | Delete.  |
|                         |                                  |                       |                   |         | Repair.  |
|                         |                                  |                       |                   |         | Details. |
|                         |                                  |                       |                   |         | Start    |
|                         |                                  |                       |                   |         |          |
|                         |                                  |                       |                   |         |          |
|                         |                                  |                       |                   |         |          |
|                         |                                  |                       |                   |         |          |
|                         |                                  |                       |                   |         | Refresh  |
| 🖊 A valid Android Vi    | rtual Device. <u></u> A repairal | le Android Virtual    | Device.           |         |          |
| 🖌 An Android Virtua     | Device that failed to load.      | Click 'Details' to se | e the error.      |         |          |

- Klik New untuk membuat AVD. Maka akan muncul kotak dialog untuk mengkonfigurasi AVD serperti dibawah ini.

| Create r                                     | new Android Virtual Device (AVD)                          | × |  |  |  |  |
|--|---|---|--|--|--|--|
| AVD Name:                                    |   |   |  |  |  |  |
| Device:                                      |   | ~ |  |  |  |  |
| Target:                                      |   | ~ |  |  |  |  |
| CPU/ABI:                                     |   | ¥ |  |  |  |  |
| Keyboard:                                    | <ul> <li>Hardware keyboard present</li> </ul>             |   |  |  |  |  |
| Skin:  | <ul> <li>Display a skin with hardware controls</li> </ul> |   |  |  |  |  |
| Front Camera:                                | None  | ~ |  |  |  |  |
| Back Camera:                                 | None  | ~ |  |  |  |  |
| Memory Options:                              | RAM: VM Heap:   |   |  |  |  |  |
| Internal Storage:                            | 200 MiB 🗸   | · |  |  |  |  |
| SD Card:                                     |   | _ |  |  |  |  |
|  | ● Size: MiB ✓   |   |  |  |  |  |
|  | O File: Browse  |   |  |  |  |  |
|  |   |   |  |  |  |  |
| Emulation Options:                           | Snapshot Use Host GPU                                     |   |  |  |  |  |
| Override the existing AVD with the same name |   |   |  |  |  |  |
| 🗙 AVD Name canr                              | not be empty  |   |  |  |  |  |
|  | OK Cancel   |   |  |  |  |  |

- Misal lakukan koknfigiurasi seperti dibawah ini.

| 😑 🛛 Edit A         | Android Virtual Device (AVD)                              |  |  |  |  |  |  |  |
|--------------------|---|--|--|--|--|--|--|--|
| AVD Name:          | Avd   |  |  |  |  |  |  |  |
| Device:            | 3.3" WQVGA (240 × 400: Idpi) 🗸 🗸                          |  |  |  |  |  |  |  |
| Target:            | Android 2.3.3 - API Level 10 🗸 🗸                          |  |  |  |  |  |  |  |
| CPU/ABI:           | ARM (armeabi)   |  |  |  |  |  |  |  |
| Keyboard:          | <ul> <li>Hardware keyboard present</li> </ul>             |  |  |  |  |  |  |  |
| Skin:              | <ul> <li>Display a skin with hardware controls</li> </ul> |  |  |  |  |  |  |  |
| Front Camera:      | None v  |  |  |  |  |  |  |  |
| Back Camera:       | None 🗸  |  |  |  |  |  |  |  |
| Memory Options:    | RAM: 512 VM Heap: 16                                      |  |  |  |  |  |  |  |
| Internal Storage:  | 2048 MiB 🗸  |  |  |  |  |  |  |  |
| SD Card:           |   |  |  |  |  |  |  |  |
|                    | ● Size: MiB ✓   |  |  |  |  |  |  |  |
|                    | O File: Browse  |  |  |  |  |  |  |  |
| Emulation Options: | Snapshot Use Host GPU                                     |  |  |  |  |  |  |  |
| Override the exist | ting AVD with the same name                               |  |  |  |  |  |  |  |
|                    |   |  |  |  |  |  |  |  |
|                    |   |  |  |  |  |  |  |  |
| OK Cancel          |   |  |  |  |  |  |  |  |

Setelah itu klik ok.

 Kemudian untuk menjalankan program menggunakan AVD adalah dengan mengklik kanan pada project program aplikasi
 → Run As → Android Application.

| 0   |  |               |                      |                       | lava - Eclipse SDK |
|---|--|---------------|----------------------|-----------------------|--------------------|
| File Edit Refactor Source   | Navigate Search Project Run              | Window Help   | ,                    |                       |                    |
| 📬 🕶 🖩 🖷 📥 💌 🕶 🖥   | ₩ @ • 🖬 🛢 🔍 🅸 •                          | 0 • % • (     | 2                    | 🔗 • 🗄 • 🖗 • 🐤 🤇       | Þ ▼ ⇒ ▼   ≅        |
| 🛱 Package Explorer 🛙  |  |               |                      |                       |                    |
| PengenalanBahasaPatra   | an a |               | ι.                   |                       |                    |
|   | Go Into                                  | ,             |                      |                       |                    |
|   | Open in New Window                       |               |                      |                       |                    |
|   | Open Type Hierarchy                      | F4            | L .                  |                       |                    |
|   | Show In                                  | Alt+Shift+W ► |                      |                       |                    |
| E   | Сору                                     | Ctrl+C        |                      |                       |                    |
| £   | Copy Qualified Name                      |               | L .                  |                       |                    |
| l in the second s | Paste                                    | Ctrl+V        | L .                  |                       |                    |
| ×   | Delete                                   | Delete        |                      |                       |                    |
|   | Build Path                               | •             | L .                  |                       |                    |
|   | Source                                   | Alt+Shift+S ► | L .                  |                       |                    |
|   | Refactor                                 | Alt+Shift+T ► | L .                  |                       |                    |
| <u>in 1</u>   | Import                                   |               |                      |                       |                    |
| 4   | Export                                   |               |                      |                       |                    |
| ې<br>مې   | Refresh                                  | F5            | L .                  |                       |                    |
|   | Close Project                            |               | L .                  |                       |                    |
|   | Assign Working Sets                      |               | L .                  |                       |                    |
|   | Run As                                   | Þ             | 0                    | 1 Android Application |                    |
|   | Debug As                                 | •             | $J^{\rm C}_{\bm{U}}$ | 2 Android JUnit Test  |                    |
|   | Team                                     | •             | 2                    | 3 Java Applet         | Alt+Shift+X, A     |
|   | Compare With                             | •             |                      | 4 Java Application    | Alt+Shift+X, J     |
|   | Restore from Local History               |               | Ju                   | 5 JUnit Test          | Alt+Shift+X, T     |
|   | Android Tools                            | •             |                      | Run Configurations    |                    |
|   | Configure                                | •             |                      | > <                   |                    |
|   | Properties                               | Alt+Enter     |                      |                       |                    |

Maka akan muncul AVD yang sudah kita buat tadi untuk menjalankan program aplikasi ini.



Diatas tampilan saat emulator booting ke dalam OS Android.



Diatas tampilan saat emulator sudah berhasil booting ke dalam OS Android.



Diatas tampilan saat emulator sudah berhasil masuk ke dalam aplikasi.

Dari hasil emulator diatas dapat kita lihat bahwa program sudah dapat berjalan di dalam AVD (Android Virtual Device) dengan baik. Anda dapat mengeksplor aplikasi dengan mencoba menggunakan fasilitas-fasilitas yang tersedia di dalam aplikasi langsung dari AVD. Sekian manual cara menjalankan program Aplikasi Pengenalan Bahasa Bakumpai, semoga bermanfaat.