**Tugas Pertama**

1. Merubah tugas studi kasus dengan menggunakan metode inheritance!

**Jawaban**

**Source Code**

* **Class induk.java**

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| 1. **package** main; 2. **import** java.util.Date; 4. **public** **class** induk { 5. **public String nama, npm, nomor, password, kelas, hari, sesi, waktu, nip;** 6. **public** **int** indexdosen, indexkursus; 7. **public** Date tanggalLahir; 8. } |

* **Class listkursus.java**

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| 1. **package** main; 2. **public** **class** listkursus { 3. **static** String[] Kursus = {"Website", "Mechine learning", "Aplikasi"}; 4. } |

* **Class dosen.java**

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| 1. **package** main; 2. **import** main.induk; 4. **public** **class** dosen **extends** induk{ 5. **public dosen(String nama, String nip){** 6. **super**.nama = nama; 7. **super**.nip = nip; 8. } 9. **public** String getNama(){ 10. **return nama;** 11. } 12. **public** String getNip(){ 13. **return** nip; 14. } 15. } |

* **Class akun.java**

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| 1. **package** main; 2. **import** main.induk; 3. **import** java.util.Date; 5. **public class akun extends induk{** 6. **public** akun(String nama, String npm, String nomor, String password, Date tanggalLahir, String kelas, String hari, String sesi, String waktu, **int** indexdosen, **int** indexkursus) { 7. **super**.nama = nama; 8. **super**.npm = npm; 9. **super**.nomor = nomor; 10. **super.password = password;** 11. **super**.kelas = kelas; 12. **super**.hari = hari; 13. **super**.sesi = sesi; 14. **super**.waktu = waktu; 15. **super.tanggalLahir = tanggalLahir;** 16. **super**.indexdosen = indexdosen; 17. **super**.indexkursus = indexkursus; 18. } 20. **public String getNama() {** 21. **return** nama; 22. } 24. **public** **void** setNama(String nama) { 25. **this.nama = nama;** 26. } 28. **public** String getNpm() { 29. **return** npm; 30. **}** 32. **public** **void** setNpm(String npm) { 33. **this**.npm = npm; 34. } 36. **public** String getNomor() { 37. **return** nomor; 38. } 40. **public void setNomor(String nomor) {** 41. **this**.nomor = nomor; 42. } 44. **public** String getPassword() { 45. **return password;** 46. } 48. **public** **void** setPassword(String password) { 49. **this**.password = password; 50. **}** 52. **public** String getKelas() { 53. **return** kelas; 54. } 56. **public** **void** setKelas(String kelas) { 57. **this**.kelas = kelas; 58. } 60. **public String getHari() {** 61. **return** hari; 62. } 64. **public** **void** setHari(String hari) { 65. **this.hari = hari;** 66. } 68. **public** String getSesi() { 69. **return** sesi; 70. **}** 72. **public** **void** setSesi(String sesi) { 73. **this**.sesi = sesi; 74. } 76. **public** String getWaktu() { 77. **return** waktu; 78. } 80. **public void setWaktu(String waktu) {** 81. **this**.waktu = waktu; 82. } 84. **public** Date getTanggalLahir() { 85. **return tanggalLahir;** 86. } 88. **public** **void** setTanggalLahir(Date tanggalLahir) { 89. **this**.tanggalLahir = tanggalLahir; 90. **}** 92. **public** **int** getIndexdosen() { 93. **return** indexdosen; 94. } 96. **public** **void** setIndexdosen(**int** indexdosen) { 97. **this**.indexdosen = indexdosen; 98. } 100. **public int getIndexkursus() {** 101. **return** indexkursus; 102. } 104. **public** **void** setIndexkursus(**int** indexkursus) { 105. **this.indexkursus = indexkursus;** 106. }  109. } |

* **Class main.java**

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| 1. **package** main; 3. **import** java.util.ArrayList; 4. **import** java.text.SimpleDateFormat; 5. **import java.util.Date;** 6. **import** java.util.Scanner; 8. **public** **class** main { 9. **static** ArrayList<dosen> dataDosen = **new** ArrayList(); 10. **static ArrayList<akun> dataAkun = new ArrayList();** 11. **static** Scanner in = **new** Scanner(System.in); 13. **public** **static** **void** main(String[]args){ 14. System.out.println("Selamat Datang di Program Kursus ITATS : "); 15. **int pil;** 16. dataDosen(); 17. **do**{ 18. System.out.println("Pilihan :"); 19. System.out.println("-------------------------"); 20. **System.out.println("1. Daftar akun ");** 21. System.out.println("2. Login "); 22. System.out.println("3. exit"); 23. System.out.println("-------------------------"); 24. System.out.print("Masukkan Pilihan : "); 25. **pil = in.nextInt();** 26. **switch**(pil){ 27. **case** 1 : 28. daftar\_akun(); 29. **break**; 30. **case 2 :** 31. System.out.print("NPM : "); 32. String npm = in.next(); 33. System.out.print("Password : "); 34. String password = in.next(); 35. **view(npm, password);** 36. **break**; 37. **case** 3 : 38. System.out.println("Terimakasih telah mengunkungi program kami"); 39. **break**; 40. **}** 41. }**while**(pil != 3); 42. } 44. **static** **void** daftar\_akun(){ 45. **System.out.print("Nama : ");** 46. String nama = in.next(); 47. System.out.print("NPM : "); 48. String npm = in.next(); 49. System.out.print("Nomor Handphone : "); 50. **String nomor = in.next();** 51. System.out.print("Password : "); 52. String password = in.next(); 53. System.out.print("Tanggal Lahir (mm/dd/yyyy) : "); 54. Date tanggalLahir = **new** Date(in.next()); 55. **System.out.print("Kelas : ");** 56. String kelas = in.next(); 57. System.out.print("Hari : "); 58. String hari = in.next(); 59. System.out.print("Sesi : "); 60. **String sesi = in.next();** 61. System.out.print("Waktu : "); 62. String waktu = in.next(); 63. System.out.println("------------------"); *//pilih dosen* 64. System.out.println("List Dosen : "); 65. **System.out.println("------------------");** 66. **for**(**int** i = 0; i < dataDosen.size(); i++){ 67. System.out.println(i + "." + dataDosen.get(i).nama); 68. } 69. System.out.print("Pilih Dosen : "); 70. **int indexdosen = in.nextInt();** 71. System.out.println("------------------"); *//pilih kursus* 72. System.out.println("List Kursus : "); 73. System.out.println("------------------"); 74. **for**(**int** i = 0; i < listkursus.Kursus.length; i++){ 75. **System.out.println(i + "." + listkursus.Kursus[i]);** 76. } 77. System.out.print("Pilih Kursus : "); 78. **int** indexkursus = in.nextInt(); 79. dataAkun.add(**new** akun(nama, npm, nomor, password, tanggalLahir, kelas, hari, sesi, waktu,indexdosen,indexkursus)); 80. **}** 82. **static** **void** view(String npm, String password) { 83. **for**(**int** i = 0; i < dataAkun.size(); i++){ 84. **if**(npm.equals(dataAkun.get(i).getNpm()) && password.equals(dataAkun.get(i).getPassword())){ 85. **System.out.println("--------------------------");** 86. System.out.println("Data Diri : "); 87. System.out.println("--------------------------"); 88. System.out.println("Nama : " + dataAkun.get(i).getNama()); 89. System.out.println("NPM : " + dataAkun.get(i).getNpm()); 90. **System.out.println("Tanggal Lahir : " + new SimpleDateFormat("dd-mm-yyyy").format(dataAkun.get(i).getTanggalLahir()));** 91. System.out.println("Nomor Handphone : " + dataAkun.get(i).getNomor()); 92. System.out.println("Kelas : " + dataAkun.get(i).getKelas()); 93. System.out.println("Hari : " + dataAkun.get(i).getHari()); 94. System.out.println("Sesi : " + dataAkun.get(i).getSesi()); 95. **System.out.println("Waktu : " + dataAkun.get(i).getWaktu());** 96. System.out.println("Nama Dosen : " + dataDosen.get(dataAkun.get(i).indexdosen).getNama()); 97. System.out.println("NIP Dosen : " + dataDosen.get(i).getNip()); 98. System.out.println("Kursus : " + listkursus.Kursus[dataAkun.get(i).indexkursus]); 99. System.out.println("---------------------------"); 100. **}else{** 101. System.out.println("NPM atau Password anda salah"); 102. } 103. } 104. } 106. **static** **void** dataDosen(){ 107. String nama[] = {"Farida", "Andy Rahcman", "Kurniawan"}; 108. String nip[] = {"01", "02", "03"}; 109. **for**(**int** i =0; i < nama.length; i++){ 110. **dataDosen.add(new dosen(nama[i], nip[i]));** 111. } 112. } 113. } |

**Output Program**

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