

## Praktikum Teknik Optimasi Pertemuan 9

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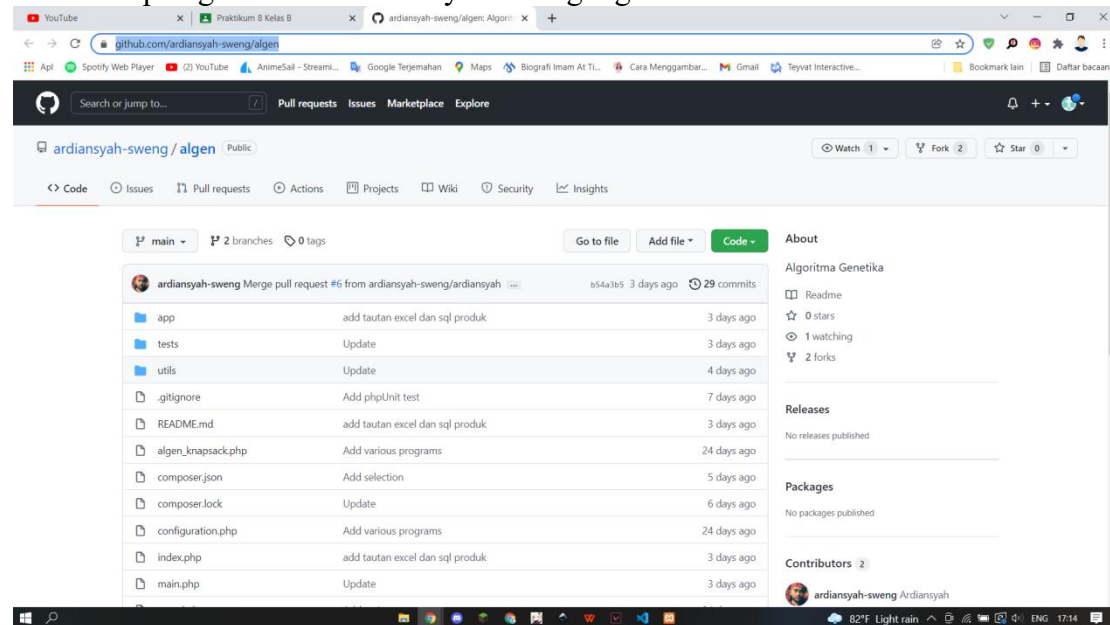
NIM : 1900018307

Kelas : B

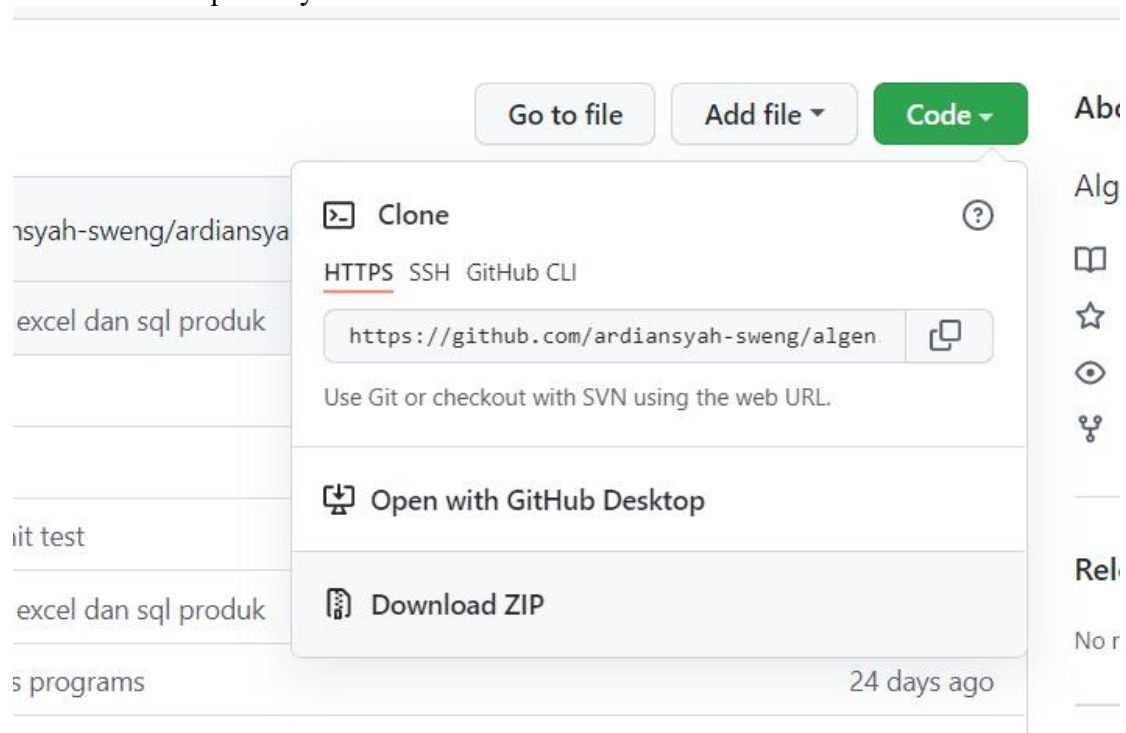
Slot : Senin, 10.30

1. Buka tautan berikut :

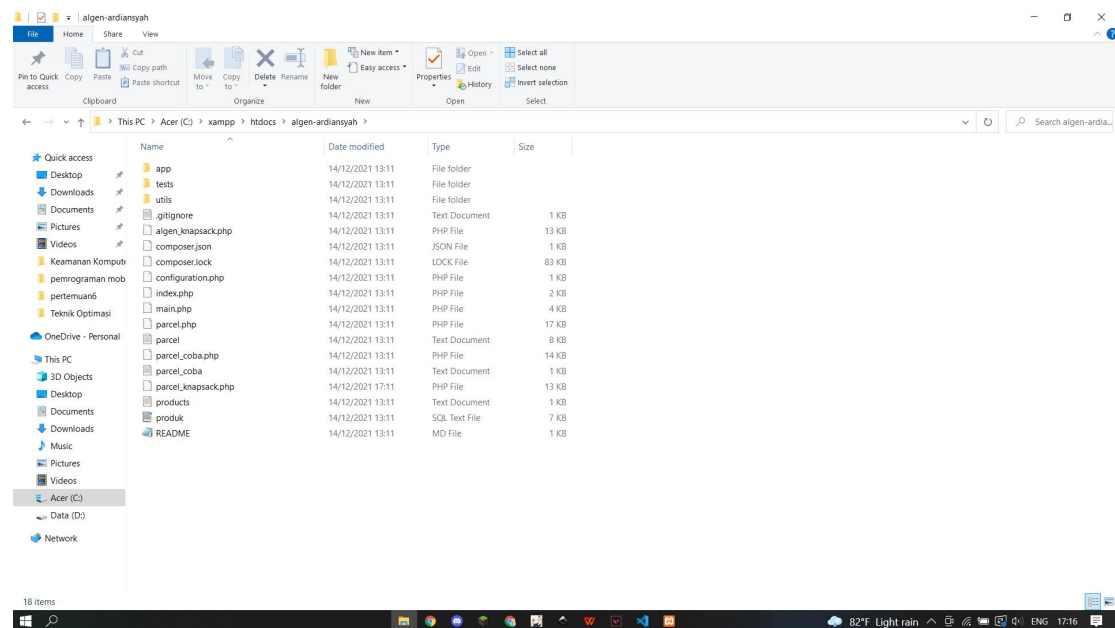
<https://github.com/ardiansyah-sweng/algen>



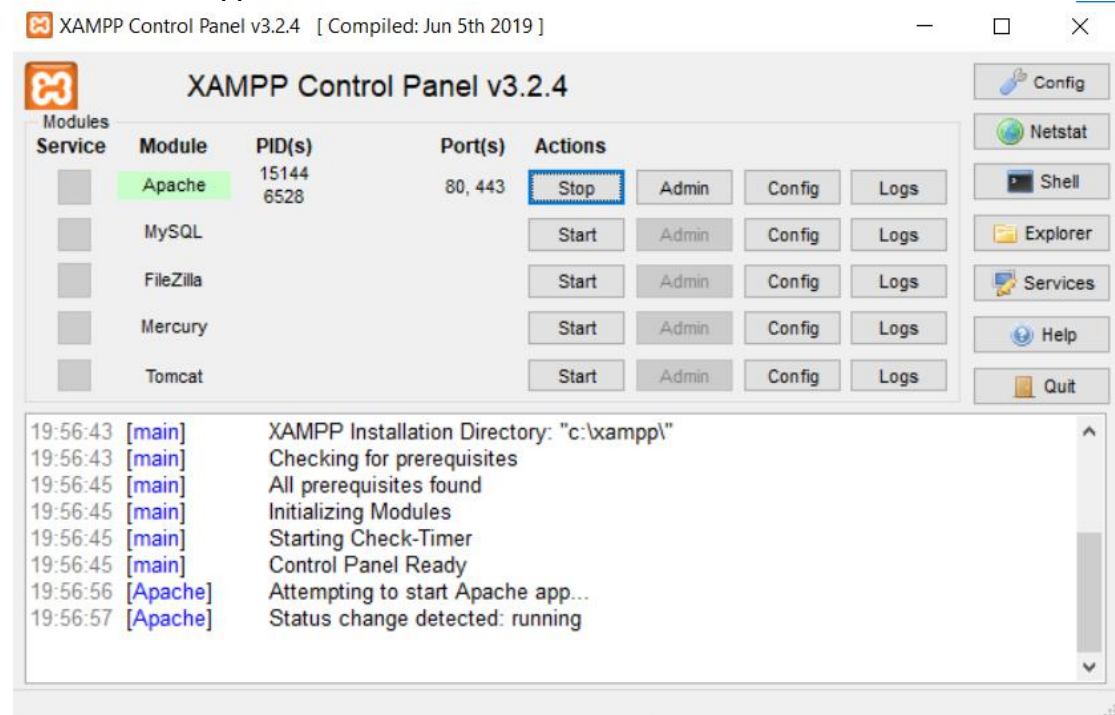
2. Download repository tersebut



3. Buka foldernya dan pindahkan pada xampp/htdoc



#### 4. Jalankan xampp



#### 5. Buka file algen\_knapsack.php di visual code

```
1 1?php
2
3 class Parameters
4 {
5     const FILE_NAME = 'products.txt';
6     const COLUMNS = ['item', 'price'];
7     const POPULATION_SIZE = 30;
8     const BUDGET = 280000;
9     const STOPPING_VALUE = 10000;
10    const CROSOVER_RATE = 0.8;
11 }
12
13 class Catalogue
14 {
15     function createProductColumn($listOfRawProduct)
16     {
17         foreach (array_keys($listOfRawProduct) as $listOfRawProductKey) {
18             $listOfRawProduct[Parameters::COLUMNS[$listOfRawProductKey]] = $listOfRawProduct[$listOfRawProductKey];
19             unset($listOfRawProduct[$listOfRawProductKey]);
20         }
21         return $listOfRawProduct;
22     }
23
24     function product()
25     {
26         $collectionOfListProduct = [];
27         $raw_data = file(Parameters::FILE_NAME);
28         foreach ($raw_data as $listOfRawProduct) {
29             $collectionOfListProduct[] = $this->createProductColumn(explode(",", $listOfRawProduct));
30         }
31         return $collectionOfListProduct;
32     }
33 }
34
35 class Individu
36 {
37     function countNumberOfGen()
38 }
```

## 6. Jalankan file pada web

Individu-0  
Max. Item: 12 Fitness value: 298030 (Not Fit)

Individu-1  
Max. Item: 13 Fitness value: 224490 (Fit)

Individu-2  
Max. Item: 11 Fitness value: 165790 (Fit)

Individu-3  
Max. Item: 12 Fitness value: 213630 (Fit)

Individu-4  
Max. Item: 12 Fitness value: 333440 (Not Fit)

Individu-5  
Max. Item: 14 Fitness value: 263480 (Fit)

Individu-6  
Max. Item: 12 Fitness value: 320570 (Not Fit)

Individu-7  
Max. Item: 10 Fitness value: 274990 (Fit)

Individu-8  
Max. Item: 13 Fitness value: 229970 (Fit)

Individu-9  
Max. Item: 16 Fitness value: 385630 (Not Fit)

Individu-10  
Max. Item: 9 Fitness value: 180880 (Fit)

Individu-11  
Max. Item: 13 Fitness value: 329580 (Not Fit)

Individu-12  
Max. Item: 12 Fitness value: 294980 (Not Fit)

Individu-13  
Max. Item: 9 Fitness value: 134480 (Fit)

```
localhost:algen-andrianyal/algen...
localhost:algen-andrianyal/algen_knapack.php
Spotify Web Player | Q2 YouTube | Anime! - Streami... | Google Terjemahan | Maps | Biografi Inum At TL... | Cara Menggambar... | Gmail | Teyyat Interactive... | Bookmark lain | Daftar bacaan

96 233480
113 265470
139 275640
196 265470
267 231480
Hasil

Best fitness value: 275640 Residual: 4360 Found

Array [0] => Array [0] => 0 [1] => 0 [2] => 1 [3] => 0 [4] => 0 [5] => 1 [6] => 0 [7] => 1 [8] => 0 [9] => 1 [10] => 1 [11] => 1 [12] => 0 [13] => 1 [14] => 1 [15] => 1 [16] => 0 [17] => 1 [18] => 0 [19] => 1 [20] => 1 [21] => 0 [22] => 0 [23] => 1 [24] => 1 [25] => 0 [26] => 1 [27] => 0 [28] => 0 [29] => 0 [30] => 0 [31] => 1 [32] => 1 [33] => 0 [34] => 1 [35] => 1 [36] => 1 [37] => 1 [38] => 1 [39] => 1 [40] => 1 [41] => 1 [42] => 0 [43] => 1 [44] => 1 [45] => 0 [46] => 0 [47] => 1 [48] => 1 [49] => 0 [50] => 1 [51] => 0 [52] => 1 [53] => 0 [54] => 1 [55] => 0 [56] => 1 [57] => 0 [58] => 1 [59] => 0 [60] => 1 [61] => 0 [62] => 1 [63] => 0 [64] => 1 [65] => 0 [66] => 1 [67] => 0 [68] => 1 [69] => 0 [70] => 1 [71] => 0 [72] => 1 [73] => 0 [74] => 1 [75] => 0 [76] => 1 [77] => 0 [78] => 1 [79] => 0 [80] => 1 [81] => 0 [82] => 1 [83] => 0 [84] => 1 [85] => 0 [86] => 1 [87] => 0 [88] => 1 [89] => 0 [90] => 1 [91] => 0 [92] => 1 [93] => 0 [94] => 1 [95] => 0 [96] => 1 [97] => 0 [98] => 1 [99] => 0 [100] => 1 [101] => 0 [102] => 1 [103] => 0 [104] => 1 [105] => 0 [106] => 1 [107] => 0 [108] => 1 [109] => 0 [110] => 1 [111] => 0 [112] => 1 [113] => 0 [114] => 1 [115] => 0 [116] => 1 [117] => 0 [118] => 1 [119] => 0 [120] => 1 [121] => 0 [122] => 0 [123] => 1 [124] => 1 [125] => 0 [126] => 1 [127] => 0 [128] => 0 [129] => 0 [130] => 0 [131] => 1 [132] => 1 [133] => 0 [134] => 1 [135] => 1 [136] => 1 [137] => 1 [138] => 1 [139] => 1 [140] => 1 [141] => 1 [142] => 0 [143] => 1 [144] => 1 [145] => 0 [146] => 0 [147] => 1 [148] => 1 [149] => 0 [150] => 1 [151] => 0 [152] => 1 [153] => 0 [154] => 1 [155] => 0 [156] => 1 [157] => 0 [158] => 1 [159] => 0 [160] => 1 [161] => 0 [162] => 1 [163] => 0 [164] => 1 [165] => 0 [166] => 1 [167] => 0 [168] => 1 [169] => 0 [170] => 1 [171] => 0 [172] => 1 [173] => 0 [174] => 1 [175] => 0 [176] => 1 [177] => 0 [178] => 1 [179] => 0 [180] => 1 [181] => 0 [182] => 1 [183] => 0 [184] => 1 [185] => 0 [186] => 1 [187] => 0 [188] => 1 [189] => 0 [190] => 1 [191] => 0 [192] => 1 [193] => 0 [194] => 1 [195] => 0 [196] => 1 [197] => 0 [198] => 1 [199] => 0 [200] => 1 [201] => 0 [202] => 1 [203] => 0 [204] => 1 [205] => 0 [206] => 1 [207] => 0 [208] => 1 [209] => 0 [210] => 1 [211] => 0 [212] => 0 [213] => 1 [214] => 1 [215] => 0 [216] => 1 [217] => 0 [218] => 0 [219] => 0 [220] => 0 [221] => 0 [222] => 0 [223] => 1 [224] => 1 [225] => 0 [226] => 1 [227] => 0 [228] => 0 [229] => 0 [230] => 0 [231] => 1 [232] => 1 [233] => 0 [234] => 1 [235] => 1 [236] => 1 [237] => 1 [238] => 1 [239] => 1 [240] => 1 [241] => 1 [242] => 0 [243] => 1 [244] => 1 [245] => 0 [246] => 0 [247] => 1 [248] => 1 [249] => 0 [250] => 1 [251] => 0 [252] => 1 [253] => 0 [254] => 1 [255] => 0 [256] => 1 [257] => 0 [258] => 1 [259] => 0 [260] => 1 [261] => 0 [262] => 1 [263] => 0 [264] => 1 [265] => 0 [266] => 1 [267] => 0 [268] => 1 [269] => 0 [270] => 1 [271] => 0 [272] => 1 [273] => 0 [274] => 1 [275] => 0 [276] => 1 [277] => 0 [278] => 1 [279] => 0 [280] => 1 [281] => 0 [282] => 1 [283] => 0 [284] => 1 [285] => 0 [286] => 1 [287] => 0 [288] => 1 [289] => 0 [290] => 1 [291] => 0 [292] => 1 [293] => 0 [294] => 1 [295] => 0 [296] => 1 [297] => 0 [298] => 1 [299] => 0 [300] => 1 [301] => 0 [302] => 1 [303] => 0 [304] => 1 [305] => 0 [306] => 1 [307] => 0 [308] => 1 [309] => 0 [310] => 1 [311] => 0 [312] => 1 [313] => 0 [314] => 1 [315] => 0 [316] => 1 [317] => 0 [318] => 1 [319] => 0 [320] => 1 [321] => 0 [322] => 0 [323] => 1 [324] => 1 [325] => 0 [326] => 1 [327] => 0 [328] => 0 [329] => 0 [330] => 0 [331] => 1 [332] => 1 [333] => 0 [334] => 1 [335] => 1 [336] => 1 [337] => 1 [338] => 1 [339] => 1 [340] => 1 [341] => 1 [342] => 0 [343] => 1 [344] => 1 [345] => 0 [346] => 0 [347] => 1 [348] => 1 [349] => 0 [350] => 1 [351] => 0 [352] => 1 [353] => 0 [354] => 1 [355] => 0 [356] => 1 [357] => 0 [358] => 1 [359] => 0 [360] => 1 [361] => 0 [362] => 1 [363] => 0 [364] => 1 [365] => 0 [366] => 1 [367] => 0 [368] => 1 [369] => 0 [370] => 1 [371] => 0 [372] => 1 [373] => 0 [374] => 1 [375] => 0 [376] => 1 [377] => 0 [378] => 1 [379] => 0 [380] => 1 [381] => 0 [382] => 1 [383] => 0 [384] => 1 [385] => 0 [386] => 1 [387] => 0 [388] => 1 [389] => 0 [390] => 1 [391] => 0 [392] => 1 [393] => 0 [394] => 1 [395] => 0 [396] => 1 [397] => 0 [398] => 1 [399] => 0 [400] => 1 [4
```