

Praktikum Teknik Optimasi Pertemuan 8

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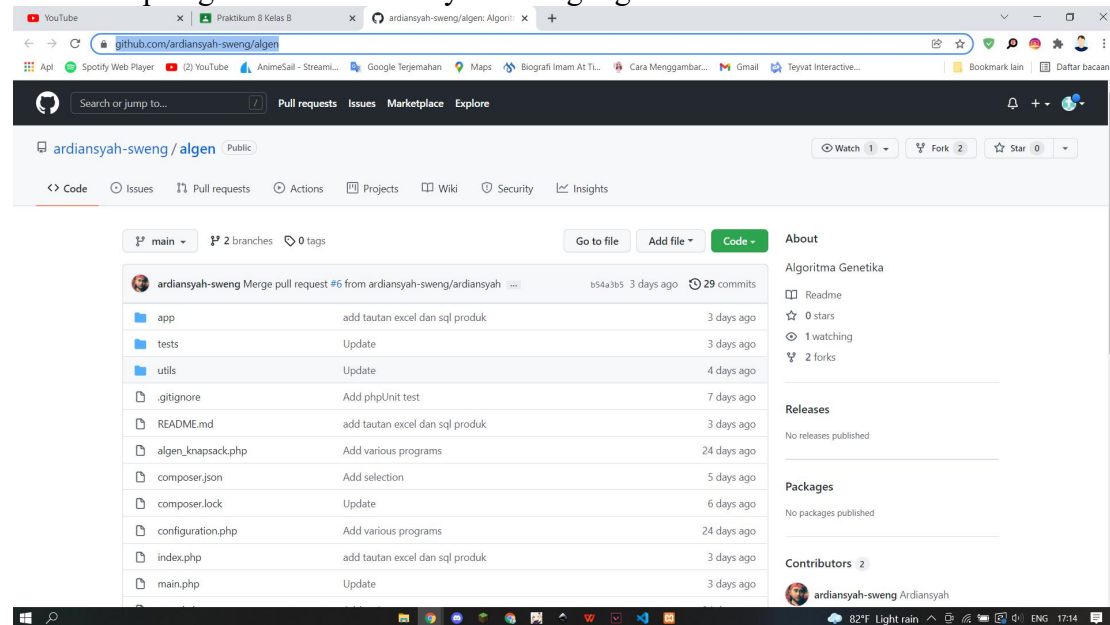
NIM : 1900018307

Kelas : B

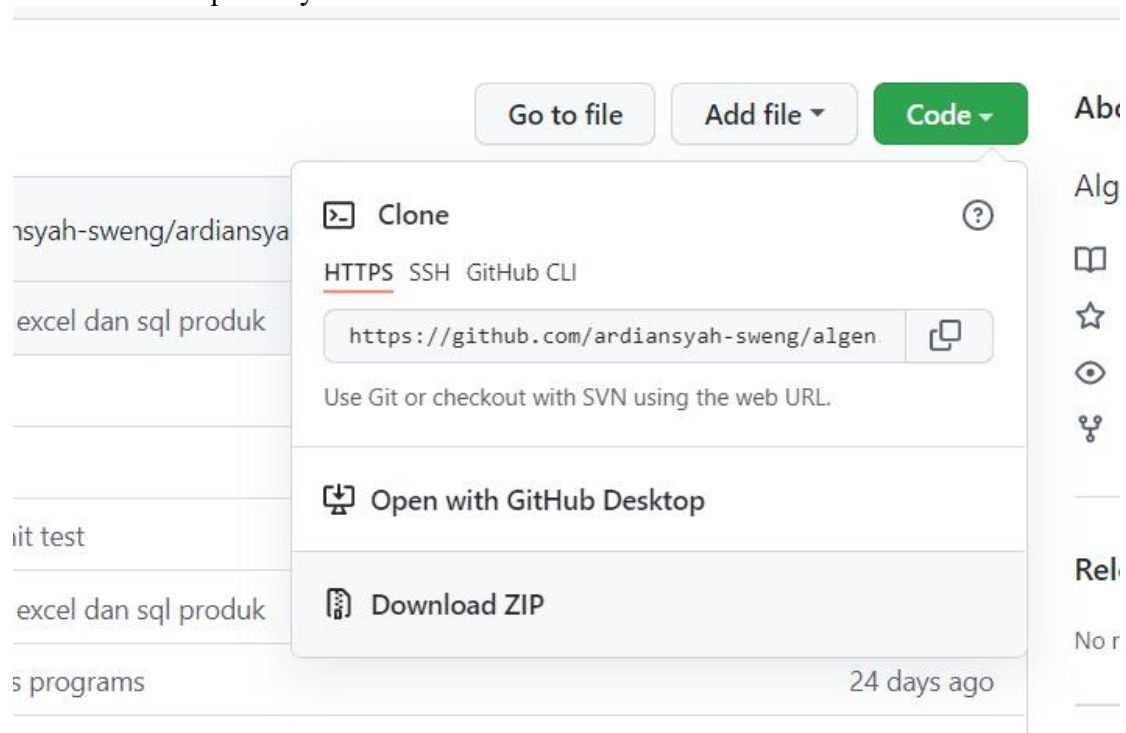
Slot : Senin, 10.30

1. Buka tautan berikut :

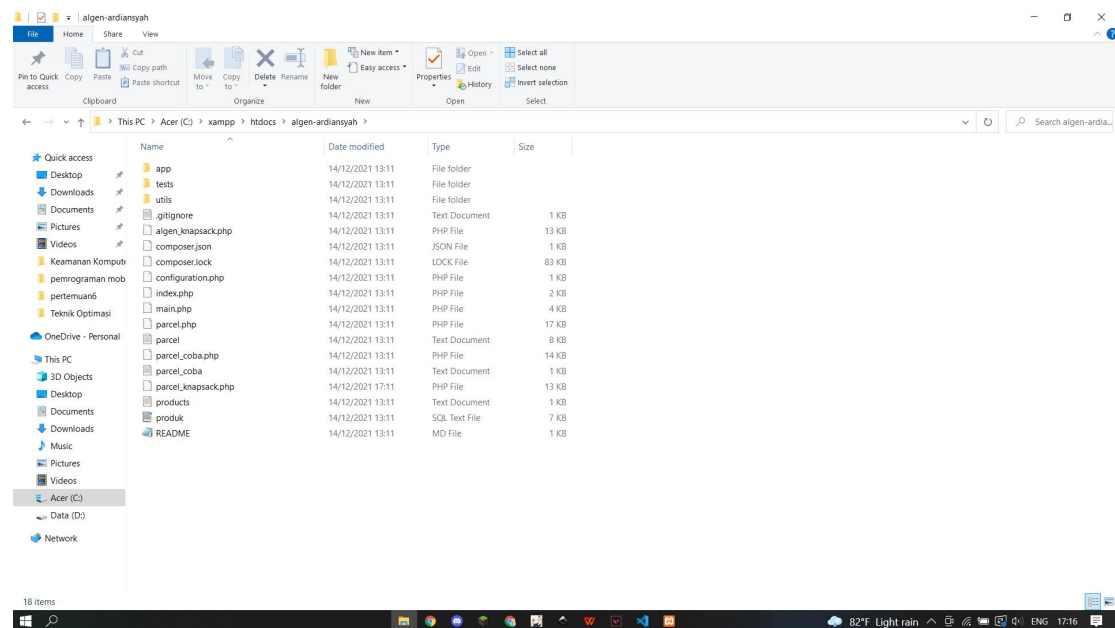
<https://github.com/ardiansyah-sweng/algen>



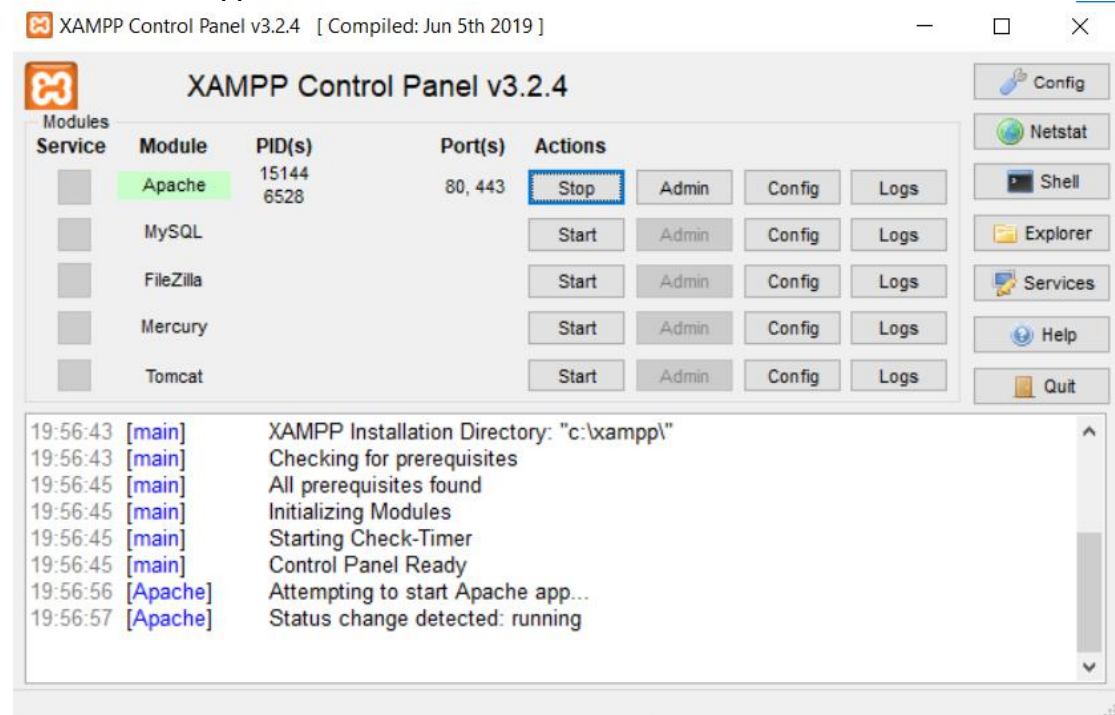
2. Download repository tersebut



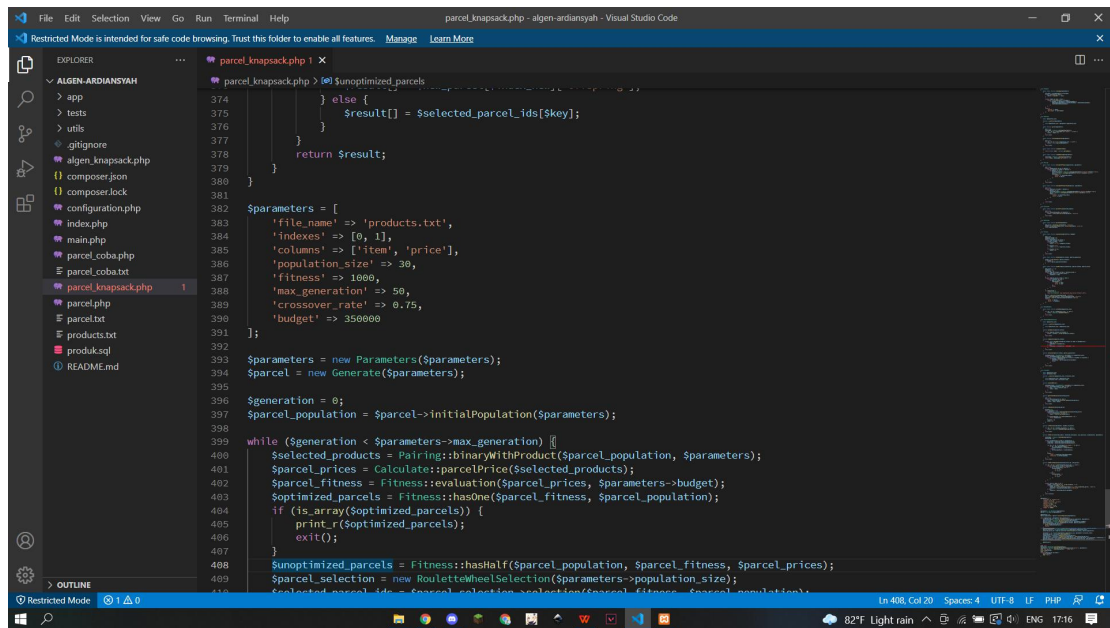
3. Buka foldernya dan pindahkan pada xampp/htdoc



4. Jalankan xampp



5. Buka file parcel_knapsack.php di visual code



```
File Edit Selection View Go Run Terminal Help
parcel_knapsack.php - algen-ardiansyah - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this folder to enable all features. Manage Learn More

EXPLORER
ALGEN-ARDIANSYAH
  > app
  > tests
  > utils
  .gitignore
  composer.json
  composer.lock
  configuration.php
  index.php
  main.php
  parcel_knapsack.php
  parcel_coba.txt
  parcel_knapsack.php 1
  parcel.php
  parcel.txt
  products.txt
  produk.sql
  README.md

parcel_knapsack.php
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$unoptimized_parcels = [];
else {
    $result[] = $selected_parcel_ids[$key];
}
return $result;
}

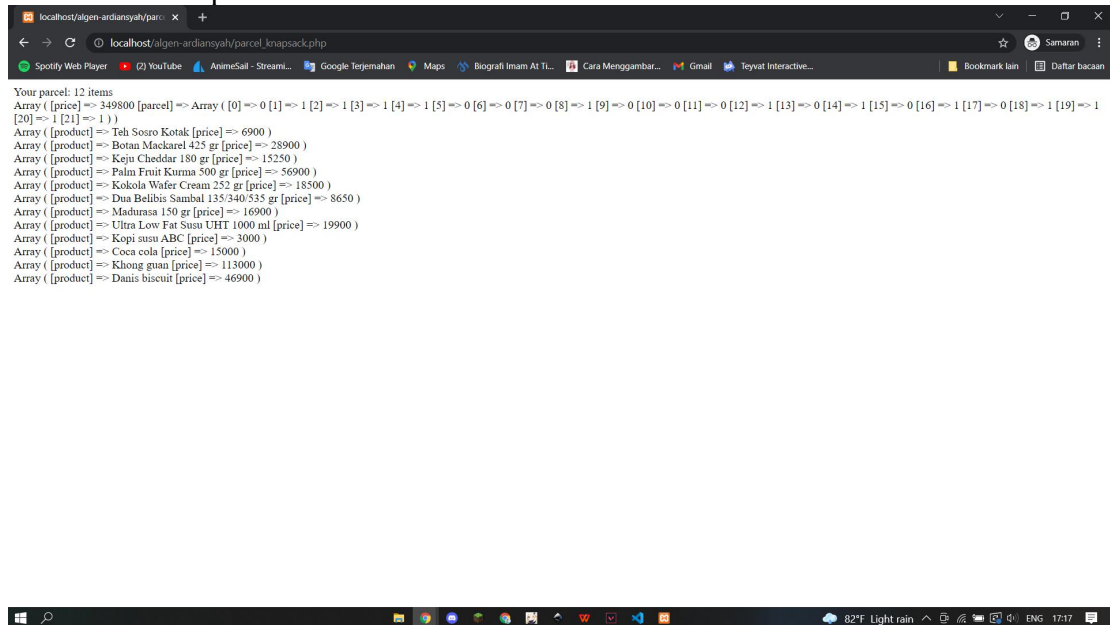
$parameters = [
    'file_name' => 'products.txt',
    'indexes' => [0, 1],
    'columns' => ['item', 'price'],
    'population_size' => 30,
    'fitness' => 1000,
    'max_generation' => 50,
    'crossover_rate' => 0.75,
    'budget' => 350000
];

$parameters = new Parameters($parameters);
$parcel = new Generate($parameters);

$generation = 0;
$parcel_population = $parcel->initialPopulation($parameters);

while ($generation < $parameters->max_generation) {
    $selected_products = Pairing::binaryWithProduct($parcel_population, $parameters);
    $parcel_prices = Calculate::parcelPrice($selected_products);
    $parcel_fitness = Fitness::evaluation($parcel_prices, $parameters->budget);
    $optimized_parcels = Fitness::hasOne($parcel_fitness, $parcel_population);
    if (is_array($optimized_parcels)) {
        print_r($optimized_parcels);
        exit();
    }
    $unoptimized_parcels = Fitness::hasHalf($parcel_population, $parcel_fitness, $parcel_prices);
    $parcel_selection = new RouletteWheelSelection($parameters->population_size);
    $selected_parcel_ids = $parcel_selection->selection($parcel_fitness, $parcel_population);
}
```

6. Jalankan file pada web



localhost/algen-ardiansyah/parcel_knapsack.php

Your parcel: 12 items
Array ([price] => 349800 [parcel] => Array ([0] => 0 [1] => 1 [2] => 1 [3] => 1 [4] => 1 [5] => 0 [6] => 0 [7] => 0 [8] => 1 [9] => 0 [10] => 0 [11] => 0 [12] => 1 [13] => 0 [14] => 1 [15] => 0 [16] => 1 [17] => 0 [18] => 1 [19] => 1 [20] => 1 [21] => 1))
Array ([product] => Teh Soro Kotak [price] => 6900)
Array ([product] => Botan Mackarel 425 gr [price] => 28900)
Array ([product] => Keju Cheddar 180 gr [price] => 15250)
Array ([product] => Palm Fruit Kurma 500 gr [price] => 56900)
Array ([product] => Kokola Wafer Cream 252 gr [price] => 18500)
Array ([product] => Dua Belibis Sambal 135/340/535 gr [price] => 8650)
Array ([product] => Madurea 150 gr [price] => 16900)
Array ([product] => Ultra Low Fat Susu UHT 1000 ml [price] => 19900)
Array ([product] => Kopi susu ABC [price] => 3000)
Array ([product] => Coca cola [price] => 15000)
Array ([product] => Khong guan [price] => 113000)
Array ([product] => Danis biseuit [price] => 46900)