LAMPIRAN

No. Skripsi:649

FORMVERIFIKASI

ABSTRAKBAHASAINGGRISDANTATA TULIS BUKULAPORANSKRIPSI

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Judul : Penerapan Metode K-Medoid pada Analisis Respon Emosi Marah
WanitaJawa

NO	BAGIANYANGDIVERIFIKASI	NAMA VERIFIKATOR	TANGGAL VERIFIKASI	TTD
1	AbstrakBerbahasaInggris	AtiqahNurulAsri, S.Pd., M. Pd.	05September 2021	
2	TataTulisBuku LaporanSkripsi	Dr.UllaDelfana Rosiani,S.T., M.T	28 Juli2021	

Lampiran 1 *Source Code K-Medoid* Min-Max

```php
    $max_p1_1 = max(array_column($data, 'p1_1'));
        $min_p1_1    =    min(array_column($data,
'p1_1'));
        $max_p2_1    =    max(array_column($data,
'p2_1'));
        $min_p2_1    =    min(array_column($data,
'p2_1'));
        $max_p3_1    =    max(array_column($data,
'p3_1'));
        $min_p3_1    =    min(array_column($data,
'p3_1'));
        $max_p4_1    =    max(array_column($data,
'p4_1'));
        $min_p4_1    =    min(array_column($data,
'p4_1'));
        $max_p5_1    =    max(array_column($data,
'p5_1'));
        $min_p5_1    =    min(array_column($data,
'p5_1'));
    $max_p6_1 = max(array_column($data, 'p6_1'));
        $min_p6_1    =    min(array_column($data,
'p6_1'));
        $max_p7_1    =    max(array_column($data,
'p7_1'));
        $min_p7_1    =    min(array_column($data,
'p7_1'));
        $max_p8_1    =    max(array_column($data,
'p8_1'));
        $min_p8_1    =    min(array_column($data,
'p8_1'));
```

Lampiran 2 *Source Code K-Medoid* Normalisasi

```php
     foreach ($data as $a) {
             $normalisasi[] = array(
                    'nama'    => $a['nama'],
                    'kota'    => $a['kota'],
                    'p1_1'                            =>
number_format(($a['p1_1']-$min_p1_1)/($max_p1_1-
$min_p1_1),3),
                    'p2_1'                            =>
number_format(($a['p2_1']-$min_p2_1)/($max_p2_1-
$min_p2_1),3),
                    'p3_1'                            =>
number_format(($a['p3_1']-$min_p3_1)/($max_p3_1-
$min_p3_1),3),
                    'p4_1'                            =>
number_format(($a['p4_1']-$min_p4_1)/($max_p4_1-
$min_p4_1),3),
                    'p5_1'                            =>
number_format(($a['p5_1']-$min_p5_1)/($max_p5_1-
$min_p5_1),3),
                    'p6_1'                            =>
number_format(($a['p6_1']-$min_p6_1)/($max_p6_1-
$min_p6_1),3),
                    'p7_1'                            =>
number_format(($a['p7_1']-$min_p7_1)/($max_p7_1-
$min_p7_1),3),
                    'p8_1'                            =>
number_format(($a['p8_1']-$min_p8_1)/($max_p8_1-
$min_p8_1),3),
        'p1_2'            =>   number_format(($a['p1_2']-
$min_p1_2)/($max_p1_2-$min_p1_2),3),
                    'p2_2'                            =>
number_format(($a['p2_2']-$min_p2_2)/($max_p2_2-
$min_p2_2),3),
```

Lampiran 3 *Source Code K-Medoid Cost*

```php
    $i = 0;
            $cost1 = array();
            foreach ($kmedoid1 as $a) {
              $value_cost = array();
              foreach ($normalisasi as $b) {
                $datacost  =  sqrt(pow(($a['p1_1']  -
$b['p1_1']),2)+pow(($a['p2_1'] - $b['p2_1']),2)
                  +pow(($a['p3_1']                  -
$b['p3_1']),2)+pow(($a['p4_1']                     -
$b['p4_1']),2)+pow(($a['p5_1'] - $b['p5_1']),2)
                  +pow(($a['p6_1']                  -
$b['p6_1']),2)+pow(($a['p7_1']                     -
$b['p7_1']),2)+pow(($a['p8_1'] - $b['p8_1']),2)
                  +pow(($a['p1_2']                  -
$b['p1_2']),2)+pow(($a['p2_2']                     -
$b['p2_2']),2)+pow(($a['p3_2'] - $b['p3_2']),2)
                  +pow(($a['p4_2']                  -
$b['p4_2']),2)+pow(($a['p5_2']                     -
$b['p5_2']),2)+pow(($a['p6_2'] - $b['p6_2']),2)
                  +pow(($a['p7_2']                  -
$b['p7_2']),2)+pow(($a['p8_2']                     -
$b['p8_2']),2)+pow(($a['p9_2'] - $b['p9_2']),2)
                  +pow(($a['p10_2']                 -
$b['p10_2']),2)+pow(($a['p1_3']                    -
$b['p1_3']),2)+pow(($a['p2_3'] - $b['p2_3']),2)
                  +pow(($a['p3_3']                  -
$b['p3_3']),2)+pow(($a['p4_3']                     -
$b['p4_3']),2)+pow(($a['p5_3'] - $b['p5_3']),2)
      +pow(($a['p6_3'] - $b['p6_3']),2)+pow(($a['p7_3']
- $b['p7_3']),2)+pow(($a['p8_3'] - $b['p8_3']),2)
      +pow(($a['p9_3']                              -
$b['p9_3']),2)+pow(($a['p10_3']                    -
```

```php
      +pow(($a['p3_3'] - $b['p3_3']),2)+pow(($a['p4_3']
- $b['p4_3']),2)+pow(($a['p5_3'] - $b['p5_3']),2)
                +pow(($a['p6_3']                        -
$b['p6_3']),2)+pow(($a['p7_3']                          -
$b['p7_3']),2)+pow(($a['p8_3'] - $b['p8_3']),2)
                +pow(($a['p9_3']                        -
$b['p9_3']),2)+pow(($a['p10_3']                         -
$b['p10_3']),2)+pow(($a['p1_4'] - $b['p1_4']),2)
     +pow(($a['p5_4'] - $b['p5_4']),2)+pow(($a['p6_4']
- $b['p6_4']),2)+pow(($a['p7_4'] - $b['p7_4']),2)
                +pow(($a['p8_4']                        -
$b['p8_4']),2)+pow(($a['p9_4']                          -
$b['p9_4']),2)+pow(($a['p10_4'] - $b['p10_4']),2)
                +pow(($a['p1_5']                        -
$b['p1_5']),2)+pow(($a['p2_5']                          -
$b['p2_5']),2)+pow(($a['p3_5'] - $b['p3_5']),2)
                +pow(($a['p4_5']                        -
$b['p4_5']),2)+pow(($a['p5_5']                          -
$b['p5_5']),2)+pow(($a['p6_5'] - $b['p6_5']),2)
                +pow(($a['p7_5']                        -
$b['p7_5']),2)+pow(($a['p8_5']                          -
$b['p8_5']),2)+pow(($a['p9_5'] - $b['p9_5']),2)
                +pow(($a['p10_5'] - $b['p10_5']),2));
                $datat    =    array('daerah    =>
$b['kota'],            'nilai_cost'                =>
number_format($datacost,3));
                array_push($value_cost,$datat);
            }
            array_push($cost1, $value_cost);
        $i++;}
```

Lampiran 4 *Source Code K-Medoid* Kedekatan

```php
    $kedekatan1 = array();
            foreach ($cost1 as $keys => $a){
                foreach($a as $key => $val){
                    $tmp[$key][] = array('nilai_cost' =>
$val['nilai_cost'],   'daerah'   =>   $val['daerah'],
'posisi' => $keys+1);
                }
            }

            foreach($tmp as $key => $val){
                sort($tmp[$key]);
                $kedekatan1[$key] = $tmp[$key][0];
            }

            $jumlah_kedekatan1                         =
array_sum(array_column($kedekatan1, 'nilai_cost'));
```

Lampiran 5 *Source Code K-Medoid* Selisih

```php
    do{
                $selisih = '';
                unset($kmedoid1);
                unset($kmedoid2);
    while($selisih < '0');
            $kedekatan = array();
            $tmp = array();
            foreach ($cost1 as $keys => $a){
                foreach($a as $key => $val){
                    $tmp[$key][] = array('nilai_cost' =>
$val['nilai_cost'],   'daerah'   =>   $val['daerah'],
'posisi' => $keys+1);
```

Lampiran 6 *Source Code K-Means Cost*

```
    pow(($a['p4_5'] - $b['p4_5']),2)+pow(($a['p5_5']
- $b['p5_5']),2)+pow(($a['p6_5'] - $b['p6_5']),2)
              +pow(($a['p7_5']                    -
$b['p7_5']),2)+pow(($a['p8_5']                    -
$b['p8_5']),2)+pow(($a['p9_5'] - $b['p9_5']),2)
              +pow(($a['p10_5'] - $b['p10_5']),2));
              $datat    =    array('daerah    =>
$b['kota'],              'nilai_cost'           =>
number_format($datacost,3));
                array_push($value_cost,$datat);
              }
            array_push($cost1, $value_cost);
          $i++;}


          $kedekatan1 = array();
          foreach ($cost1 as $keys => $a){
            foreach($a as $key => $val){
              $tmp[$key][] = array('nilai_cost' =>
$val['nilai_cost'],  'daerah'  =>  $val['daerah'],
'posisi' => $keys+1);
              }
            }
```

Lampiran 7 *Source Code K-Means* Pusat Baru

```php
    do{
            $totalnya                                      =
array_count_values($jumlah_kedekatan1);
            $kmeans = array();
            for          ($i=1;          $i          <
max($jumlah_kedekatan1)+1; $i++) {
                $hasil = array();
                $hasil[0]['p1_1'] = 0;
                $hasil[0]['p2_1'] = 0;
                $hasil[0]['p3_1'] = 0;
                $hasil[0]['p4_1'] = 0;
                $hasil[0]['p5_1'] = 0;
        foreach ($jumlah_kedekatan1 as $key => $a) {
                if ($a == $i) {
                    $hasil[0]['p1_1']                    +=
$normalisasi[$key]['p1_1'];
        while ($pecah_kedekatan1 != $pecah_kedekatan2);
            $kedekatan = array();
            $tmp = array();
            foreach ($cost1 as $keys => $a){
                foreach($a as $key => $val){
                    $tmp[$key][] = array('nilai_cost' =>
$val['nilai_cost'], 'posisi' => $keys+1);
                }
            }
```

Lampiran 8 *Source Code Silhouette Coefficient*

```php
    public function hitungsc()
      {
        $clustering     =   $this->model_clustering-
>getData();
        if($this->max_array_value($clustering,
'nama_clustering') != 1){
            $banyaknya                    =        $this-
>max_array_value($clustering, 'nama_clustering');
            $total = array();
            $pecah = array();
            $hitung= array();
            $sc = array();
            for ($i=1; $i < $banyaknya+1; $i++) {
                $tmp = 0;
                $semua = 0;
                $antarasc = array();
                foreach($clustering as $e){
                  $tmp += pow($e['cost_clustering'],2);
                  if($e['nama_clustering'] == $i){
                    $semua++;
                  }
                }
    $pecah          =           $this->model_clustering-
>another('nama_clustering',$i);
                $f = 0;
                $tes = array();
    foreach ($pecah as $value) {
```

```php
    $avgpersc = array();
            foreach($tes as $key => $a){
              $count = count($this->model_clustering-
>getallbyparam('nama_clustering',$key));
                $avgpersc[$key] = $a/$count;
            }
            $hitung[$i]= min($avgpersc);
            $total[$i] = (1 / $semua)*(sqrt($tmp));
            $sc[$i] = 1-($total[$i]/$hitung[$i]);
          }
    $data = [
            'data'  => $sc,
            'menu'  => 'Kmedoid'
          ];
          $this->load->view('kmedoid/sc', $data);
        }else{
          echo
          "<script>
              alert('maaf    hasil    akurasi    tidak
ditemukan.');
              window.location = 'show';
          </script>" ;
        }
      }
```

BIODATA

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