

LAMPIRAN

```
function mining_process($db_object, $min_support, $min_confidence, $start_date, $end_date, $id_process){
    $sql_trans = "SELECT * FROM transaksi
    WHERE transaction_date BETWEEN '$start_date' AND '$end_date' ";
    $result_trans = $db_object->db_query($sql_trans);
    $dataTransaksi = $item_list = array();
    $jumlah_transaksi = $db_object->db_num_rows($result_trans);
    $min_support_relative = ($min_support/$jumlah_transaksi)*100;
    $x=0;
    while($myrow = $db_object->db_fetch_array($result_trans)){
        $dataTransaksi[$x]['tanggal'] = $myrow['transaction_date'];
        $item_produk = $myrow['produk'].",";
        //mencegah ada jarak spasi
        $item_produk = str_replace(" ", "", $item_produk);
        $item_produk = str_replace(" ", "", $item_produk);
        $item_produk = str_replace(" ", "", $item_produk);
        $item_produk = str_replace(" ", "", $item_produk);
        $item_produk = str_replace(" ", "", $item_produk);
        $item_produk = str_replace(" ", "", $item_produk);
        $item_produk = str_replace(" ", "", $item_produk);
        $item_produk = str_replace(" ", "", $item_produk);
        $dataTransaksi[$x]['produk'] = $item_produk;
        $produk = explode(",", $myrow['produk']);
        //all items
        foreach ($produk as $key => $value_produk) {
            if(!in_array(strtoupper($value_produk), array_map('strtoupper', $item_list))){
                if(!empty($value_produk)){
                    $item_list[] = $value_produk;
                }
            }
        }
        $x++;
    }
}
```

Gambar Coding Pencarian Support

```
$itemset1 = $jumlahItemset1 = $supportItemset1 = $valueIn = array();
$x=1;
foreach ($item_list as $key => $item) {
    $jumlah = jumlah_itemset1($dataTransaksi, $item);
    $support = ($jumlah/$jumlah_transaksi) * 100;
    $lolos = ($support>=$min_support_relative)?"1":"0";
    $valueIn[] = "('item', '$jumlah', '$support', '$lolos', '$id_process)";
    if($lolos){
        $itemset1[] = $item; //item yg lolos itemset1
        $jumlahItemset1[] = $jumlah;
        $supportItemset1[] = $support;
    }
    echo "<tr>";
    echo "<td>" . $x . "</td>";
    echo "<td>" . $item . "</td>";
    echo "<td>" . $jumlah . "</td>";
    echo "<td>" . price_format($support) . "</td>";
    echo "<td>" . (($lolos==1)?"Lolos":"Tidak Lolos") . "</td>";
    echo "</tr>";
    $x++;
}
```

Gambar Coding Pencarian 1-Itemset

```

$NilaiAtribut1 = $NilaiAtribut2 = array();
$itemset2_var1 = $itemset2_var2 = $jumlahItemset2 = $supportItemset2 = array();
$valueIn_itemset2 = array();
$no=1;
$a = 0;
while ($a <= count($itemset1)) {
    $b = 0;
    while ($b <= count($itemset1)) {
        $variance1 = $itemset1[$a];
        $variance2 = $itemset1[$b];
        if (!empty($variance1) && !empty($variance2)) {
            if ($variance1 != $variance2) {
                if (!is_exist_variasi_itemset($NilaiAtribut1, $NilaiAtribut2, $variance1, $variance2)) {
                    // $jml_itemset2 = get_count_itemset2($db_object, $variance1, $variance2, $start_date, $end_date);
                    $jml_itemset2 = jumlah_itemset2($dataTransaksi, $variance1, $variance2);
                    $NilaiAtribut1[] = $variance1;
                    $NilaiAtribut2[] = $variance2;

                    $support2 = ($jml_itemset2/$jumlah_transaksi) * 100;
                    $lolos = ($support2 >= $min_support_relative)? 1:0;

                    $valueIn_itemset2[] = ("('$variance1', '$variance2', '$jml_itemset2', '$support2', '$lolos', '$id_process')");
                    if ($lolos){
                        $itemset2_var1[] = $variance1;
                        $itemset2_var2[] = $variance2;
                        $jumlahItemset2[] = $jml_itemset2;
                        $supportItemset2[] = $support2;
                    }
                    echo "<tr>";
                    echo "<td>" . $no . "</td>";
                    echo "<td>" . $variance1 . "</td>";
                    echo "<td>" . $variance2 . "</td>";
                    echo "<td>" . $jml_itemset2 . "</td>";
                    echo "<td>" . price_format($support2) . "</td>";
                }
            }
        }
    }
}

```

Gambar Coding Pencarian 2-Itemset

```

$jml_itemset3 = jumlah_itemset3($dataTransaksi, $itemset1, $itemset2, $itemset3);
$support3 = ($jml_itemset3/$jumlah_transaksi) * 100;
$lolos = ($support3 >= $min_support_relative)? 1:0;

$valueIn_itemset3[] = ("('$itemset1', '$itemset2', '$itemset3', '$jml_itemset3', '$support3', '$lolos', '$id_process')");

if ($lolos){
    $itemset3_var1[] = $itemset1;
    $itemset3_var2[] = $itemset2;
    $itemset3_var3[] = $itemset3;
    $jumlahItemset3[] = $jml_itemset3;
    $supportItemset3[] = $support3;
}

echo "<tr>";
echo "<td>" . $no . "</td>";
echo "<td>" . $itemset1 . "</td>";
echo "<td>" . $itemset2 . "</td>";
echo "<td>" . $itemset3 . "</td>";
echo "<td>" . $jml_itemset3 . "</td>";
echo "<td>" . price_format($support3) . "</td>";
echo "<td>" . (($lolos==1)? "Lolos": "Tidak Lolos") . "</td>";
echo "</tr>";
$no++;
}

```

Gambar Pencarian 3-Itemset

```

function hitung_confidence($db_object, $supp_xuy, $min_support, $min_confidence,
    $atribut1, $atribut2, $atribut3, $id_process, $dataTransaksi, $jumlah_transaksi){
    $jml_itemset2 = jumlah_itemset2($dataTransaksi, $atribut1, $atribut2);
    $nilai_support_x = ($jml_itemset2/$jumlah_transaksi) * 100;

    $kombinasii1 = $atribut1." , ".$atribut2;
    $kombinasii2 = $atribut3;
    $supp_x = $nilai_support_x;//$row1['support'];
    $conf = ($supp_xuy/$supp_x)*100;
    //lolos seleksi min confidence itemset3
    $lolos = ($conf >= $min_confidence)? 1:0;

    //hitung korelasi lift
    $jumlah_kemunculanAB = jumlah_itemset3($dataTransaksi, $atribut1, $atribut2, $atribut3);
    $PAUB = $jumlah_kemunculanAB/$jumlah_transaksi;

    $jumlah_kemunculanA = jumlah_itemset2($dataTransaksi, $atribut1, $atribut2);
    $jumlah_kemunculanB = jumlah_itemset1($dataTransaksi, $atribut3);

    //$nilai_uji_lift = $PAUB / $jumlah_kemunculanA * $jumlah_kemunculanB;
    $nilai_uji_lift = $PAUB / (($jumlah_kemunculanA/$jumlah_transaksi) * ($jumlah_kemunculanB/$jumlah_transaksi));
    $korelasi_rule = ($nilai_uji_lift<1)?"korelasi negatif":"korelasi positif";
    if($nilai_uji_lift==1){
        $korelasi_rule = "tidak ada korelasi";
    }

    //masukkan ke table confidence
    $db_object->insert_record("confidence",
        array(("kombinasii1" => $kombinasii1,
            "kombinasii2" => $kombinasii2,
            "support_xUy" => $supp_xuy,
            "support_x" => $supp_x,
            "confidence" => $conf,
            "lolos" => $lolos,

```

Gambar Coding Pencarian Confidence

```

$jumlah_kemunculanAB = jumlah_itemset2($dataTransaksi, $atribut1, $atribut2);
$PAUB = $jumlah_kemunculanAB/$jumlah_transaksi;

$jumlah_kemunculanA = jumlah_itemset1($dataTransaksi, $atribut1);
$jumlah_kemunculanB = jumlah_itemset1($dataTransaksi, $atribut2);

$nilai_uji_lift = $PAUB / (($jumlah_kemunculanA/$jumlah_transaksi) * ($jumlah_kemunculanB/$jumlah_transaksi));
$korelasi_rule = ($nilai_uji_lift<1)?"korelasi negatif":"korelasi positif";
if($nilai_uji_lift==1){
    $korelasi_rule = "tidak ada korelasi";
}

$db_object->insert_record("confidence",
    array(("kombinasii1" => $kombinasii1,
        "kombinasii2" => $kombinasii2,
        "support_xUy" => $supp_xuy,
        "support_x" => $supp_x,
        "confidence" => $conf,
        "lolos" => $lolos,
        "min_support" => $min_support,
        "min_confidence" => $min_confidence,
        "nilai_uji_lift" => $nilai_uji_lift,
        "korelasi_rule" => $korelasi_rule,
        "id_process" => $id_process,
        "jumlah_a" => $jumlah_kemunculanA,
        "jumlah_b" => $jumlah_kemunculanB,
        "jumlah_ab" => $jumlah_kemunculanAB,
        "px" => ($jumlah_kemunculanA/$jumlah_transaksi),
        "py" => ($jumlah_kemunculanB/$jumlah_transaksi),
        "pxuy" => $PAUB,
        "from_itemset"=>2

```

Gambar Coding Pencarian Lift-ratio