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package sem12122.sse3305.service;

import java.text.DecimalFormat;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Date;
import java.util.Locale;

public class PensionServiceIMP implements PensionService {

	@Override
	public ArrayList<String> kirapencen(ArrayList<String> details) {

		DecimalFormat df = new DecimalFormat("#.00");
		// df.setMaximumFractionDigits(2);
		ArrayList<String> output = new ArrayList<String>();

		System.out.println("jantina" + details.get(15));

		String[] montharray = new String[] { "Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sep",
"Oct",
				"Nov", "Dec" };
		int[] daysofmontharray = new int[] { 31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31 };

		String sDate1 = "Apr 12, 1991";
		Date tarapril = null;
		try {
			tarapril = new SimpleDateFormat("MMMM d, yyyy", Locale.ENGLISH).parse(sDate1);
		} catch (ParseException e) {
			// TODO Auto-generated catch block
			e.printStackTrace();
		}

		int tlahir_hari = Integer.parseInt(details.get(0));
		int tlahir_bulan = Integer.parseInt(details.get(1));
		int tlahir_tahun = Integer.parseInt(details.get(2));

		int tmkhidmat_hari = Integer.parseInt(details.get(3));
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int tmkhidmat_bulan = Integer.parseInt(details.get(4));
int tmkhidmat_tahun = Integer.parseInt(details.get(5));

double gajiakhir = Double.parseDouble(details.get(6));
double imbuhantetap = Double.parseDouble(details.get(7));
double gantiancuti = Double.parseDouble(details.get(8));

int cuti_hari = Integer.parseInt(details.get(9));
int cuti_bulan = Integer.parseInt(details.get(10));
int cuti_tahun = Integer.parseInt(details.get(11));

System.out.println("cuti_hari=" + cuti_hari);

int tpencen_hari = Integer.parseInt(details.get(12));
int tpencen_bulan = Integer.parseInt(details.get(13));
int tpencen_tahun = Integer.parseInt(details.get(14));

String tjantina = details.get(15);
String tistimewa = details.get(16);

// ******* to obtain pensioner age

int bulan_cuti_tg = (cuti_tahun * 12) + cuti_bulan;
int minusbulan = 0;
int minustahun = 0;
int plusbulan = 0;

minustahun = 0;
if (tpencen_hari < tlahir_hari)
      minusbulan = 1;
if ((tpencen_bulan - minusbulan) < tlahir_bulan) {
      plusbulan = 12;
      minustahun = 1;
}

int umursara_bulan = tpencen_bulan - minusbulan + plusbulan - tlahir_bulan;
int umursara_tahun = tpencen_tahun - minustahun - tlahir_tahun;

output.add(Integer.toString(umursara_bulan));
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            output.add(Integer.toString(umursara_tahun));

            // **** change date format

            String mkstr = montharray[tmkhidmat_bulan - 1] + " " + tmkhidmat_hari + ", " + tmkhidmat_tahun;
            String mpstr = montharray[tpencen_bulan - 1] + " " + tpencen_hari + ", " + tpencen_tahun;
            System.out.println("mkstr=" + mkstr);
            System.out.println("mpstr=" + mpstr);

            Date mkstr1 = null;
            try {
                  mkstr1 = new SimpleDateFormat("MMMM d, yyyy", Locale.ENGLISH).parse(mkstr);
            } catch (ParseException e) {
                  // TODO Auto-generated catch block
                  e.printStackTrace();
            }

            Date mpstr1 = null;
            try {
                  mpstr1 = new SimpleDateFormat("MMMM d, yyyy", Locale.ENGLISH).parse(mpstr);
            } catch (ParseException e) { // TODO Auto-generated catch block
                  e.printStackTrace();
            }

            System.out.println("mkstr1=" + mkstr1);
            System.out.println("mpstr1=" + mpstr1);

            // ***** Calculate start date before 12/04/1991

            int umurbayarpencen = 0;

            if (mkstr1.before(tarapril) && ((tjantina.equals("L") && tistimewa.equals("Y")) ||
tjantina.equals("P"))) {
                  umurbayarpencen = 45;
            } else {
                  if (mkstr1.before(tarapril)) {
                        umurbayarpencen = 50;
                  } else {
                  }
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      umurbayarpencen = 55;
}

System.out.println("umurbayarpencen=" + umurbayarpencen);

// ************* calculate month working
minusbulan = 0;
minustahun = 0;
plusbulan = 0;

if (tpencen_hari < tmkhidmat_hari)
      minusbulan = 1;
if ((tpencen_bulan - minusbulan) < tmkhidmat_bulan) {
      minustahun = 1;
      plusbulan = 12;
}

int tbk = tpencen_bulan - minusbulan + plusbulan - tmkhidmat_bulan;
int ttk = tpencen_tahun - minustahun - tmkhidmat_tahun;

int bulankira = ((ttk * 12) + tbk) - bulan_cuti_tg;

// ****** calculate service more than 10 years
// ****** Pensioner age must 40 above

int tiadaganjaran = 0;

if (umursara_tahun < 40) {
      tiadaganjaran = 1;
}

if ((bulankira < 120) && (umursara_tahun >= 40)) {
      tiadaganjaran = 2;
}


output.add(Integer.toString(tiadaganjaran));
System.out.println("tiadaganjaran1="+tiadaganjaran);
output.add(Integer.toString(bulankira));
```

```
            int bulanganjar = bulankira;

            System.out.println("bulanganjar=" + bulanganjar);

            double PencenMinima = 0.00;
            if (bulankira > 360)
                  bulankira = 360;

            double jumpenc = (1.00 / 600.00) * bulankira * gajiakhir;
            PencenMinima = jumpenc;

            System.out.println("PencenMinima=" + jumpenc);

            if (PencenMinima < 720)
                  PencenMinima = 720;
            if (bulankira < 300)
                  PencenMinima = jumpenc;

            output.add(df.format(PencenMinima));

            double jumganjar = 0.075 * bulanganjar * gajiakhir;

            output.add(df.format(jumganjar));

            if (gantiancuti > 150)
                  gantiancuti = 150;

            double jumganjarancr = (1.00 / 30.00) * gantiancuti * (gajiakhir + imbuhantetap);

            output.add(df.format(jumganjarancr));

            System.out.println("jumgcr=" + jumganjarancr + "GC" + gantiancuti + "GA" + gajiakhir + "IT" +
imbuhantetap);

            // ***** kira tarikh pencen mula dibayar

            int tbayar_hari = tlahir_hari;
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```
            minusbulan = 0;
            if (tbayar_hari == 0) {
                  tbayar_hari = daysofmontharray[tlahir_bulan - 1];
                  minusbulan = 1;
            }

            int tbayar_bulan = tlahir_bulan - minusbulan;
            if (tbayar_bulan == 0) {
                  tbayar_bulan = 12;
                  minustahun = 1;
            }

            int tbayar_tahun = tlahir_tahun + umurbayarpencen - minustahun;
            output.add(montharray[tbayar_bulan - 1] + tbayar_tahun);

            return output;

      }

}
```