

Correction TP06

Matière : ATELIER DEVELOPPEMENT MOBILE 1

Classes : SEM21

```
public class Personne {
    public static final int HOMME = 0;
    public static final int FEMME = 1;
    private float poids;
    private float taille;
    private int age;
    public Personne(float poids, float taille, int age) {
        this.poids = poids;
        this.taille = taille;
        this.age = age;
    }
    public float getPoids() {
        return poids;
    }
    public float getTaille() {
        return taille;
    }
    public int getAge() {
        return age;
    }

    public double imc() {
        return poids / Math.pow(taille, 2);
    }

    public double getPoidsIdeal(boolean estHomme) {
        if (estHomme)
            return taille * 100 - 100 - (taille * 100 - 150) / 4;
        else
            return taille * 100 - 100 - (taille * 100 - 150) / 2.5;
    }

    @Override
    public String toString() {
        DecimalFormat df = new DecimalFormat("0.00");
        return poids+"Kg,"+taille+"m,"+age+"ans,"+"imc:"+df.format(imc());
    }
}
```

```

package com.imc;
//imports
public class MainActivity extends AppCompatActivity {
    private EditText edPoids;
    private EditText edTaille;
    private EditText edAge;
    private Button btnAjouter;
    private Button btnEffacer;
    private Button btnVider;
    private ListView lstPersonne;
    private ArrayAdapter<Personne> adpPersonne;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        init();
    }
    private void init() {
        edPoids = findViewById(R.id.edPoids);
        edTaille = findViewById(R.id.edTaille);
        edAge = findViewById(R.id.edAge);
        btnAjouter = findViewById(R.id.btnAjouter);
        btnEffacer = findViewById(R.id.btnEffacer);
        btnVider = findViewById(R.id.btnVider);
        lstPersonne = findViewById(R.id.lstPersonne);
        adpPersonne = new ArrayAdapter<Personne>(this,
            android.R.layout.simple_list_item_1);
        lstPersonne.setAdapter(adpPersonne);
        ajouterEcouteur();
    }
    private void ajouterEcouteur() {
        btnAjouter.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                ajouter();
            }
        });
        btnEffacer.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                effacer();
            }
        });
    }
}

```

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btnVider.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        vider();
    }
});

lstPersonne.setOnItemClickListener(new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
        afficher(position);
    }
});
}

private void effacer() {
    edPoids.setText("");
    edTaille.setText("");
    edAge.setText("");
    edPoids.requestFocus();
}
private void ajouter() {
    if(!edAge.getText().toString().isEmpty() &&
! edPoids.getText().toString().isEmpty() &&
! edTaille.getText().toString().isEmpty()){
        int age = Integer.parseInt(edAge.getText().toString());
        if (age > 18) {
            float poids = Float.parseFloat(edPoids.getText().toString());
            float taille = Float.parseFloat(edTaille.getText().toString());
            Personne p = new Personne(poids, taille, age);
            adpPersonne.add(p);
            effacer();
        } else {
            Toast t = Toast.makeText(this,
                "Ce calcul n'est interprétable que pour un adulte!",
                Toast.LENGTH_LONG);
            t.show();
        }
    }else{
        Toast t = Toast.makeText(this, "Vérifier les valeurs SVP!", Toast.LENGTH_LONG);
        t.show();
    }
}
private void vider() {
    adpPersonne.clear();
}

```

```

private void afficher(int position) {
    AlertDialog.Builder b = new AlertDialog.Builder(this);
    b.setTitle("Homme/Femme");
    b.setMessage("Vous êtes?");
    b.setPositiveButton("Homme", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface arg0, int arg1) {
            afficherMessage(position,true);
        }
    });
    b.setNegativeButton("Femme", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialog, int which) {
            afficherMessage(posio,false);
        }
    });
    AlertDialog alertDialog = b.create();
    alertDialog.show();
}

```

```

protected void afficherMessage(int position, boolean estHomme) {
    Personne p = adpPersonne.getItem(position);
    DecimalFormat df = new DecimalFormat("0.00");
    String message = "IMC: " + df.format(p.imc()) + "\n";
    message += "Interprétation: ";
    if (p.imc() < 18.5)
        message += "Maigreur\n";
    else if (p.imc() < 30)
        message += "Corpulence normale\n";
    else
        message += "Surpoids\n";
    String type;
    if (estHomme)
        type = "H";
    else
        type = "F";
    message += "poids Idéal (" + type + ") : "
        + p.getPoidsIdeal(estHomme);
    Toast t = Toast.makeText(this, message, Toast.LENGTH_LONG);
    t.show();
}
}

```