#### **EPT**

### RAISE / THROW ARE UGLY GOTOS

#### MIAGE M2 - QUALITÉ DU SI - THOMAS HAESSLÉ

```
type weapon
type target
type impacted = | Impacted
let arm your bow : weapon = raise (Failure "NoMoreArrow")
let targeted monster : target = raise (Failure "TooMuchFog")
let hit monster : weapon -> target -> impacted =
    fun w t -> Impacted
```

```
class Weapon {
  Weapon() {
    throw new RuntimeException("NoMoreArrow");
class Target {
  Target(){
    throw new RuntimeException("TooMuchFog");
class Impacted{}
public class Main {
    Weapon armYouBow = new Weapon();
    Target targetMonster = new Target();
    Impacted hitMonster(Weapon w, Target t) {
        return new Impacted();
```

### On remarquera le manque d'expressivité de Java

# **EXCEPTIONS**

### **RAISE / THROW ARE UGLY GOTOS**

```
class Weapon(){
    throw new RuntimeException("NoMoreArrow");
}

class Target {
    Target(){
        throw new RuntimeException("TooMuchFog");
    }
}

class Impacted{}

public class Main {
    Weapon armYouBow = new Weapon();
    Target targetMonster = new Target();
    Impacted hitMonster(Weapon w, Target t) {
        return new Impacted();
    }
}
```

```
type weapon
type target
type impacted = | Impacted

let arm_your_bow : weapon = raise (Failure "NoMoreArrow")
let targeted_monster : target = raise (Failure "TooMuchFog")
let hit_monster : weapon -> target -> impacted =
    fun w t -> Impacted
```

On remarquera le manque d'expressivité de Java

# **EXCEPTIONS**

### RAISE / THROW ARE UGLY GOTOS LOST IN TIME OF ASYNC / FUTURE

```
class Weapon {
     Weapon() { throw new RuntimeException("NoMoreArrow"); }
class Target {
     Target() { throw new RuntimeException("TooMuchFog");}
class Impacted {}
public class Main {
    static Weapon armYouBow = new Weapon();
    static Target targetMonster = new Target();
    static Impacted hitMonster(Weapon w, Target t) {
        return new Impacted();
    public static FutureTask<Void> attack = new FutureTask<>(new Runnable() {
          @Override
          public void run() { hitMonster(armYouBow,targetMonster); }
      }, (Void) null);
      public static void main(String[] args) {
        ExecutorService es = Executors.newSingleThreadExecutor();
        es.execute(attack);
        es.shutdown();
```