**INSTINCT INSTITUTE**

**ICT Department**

# របៀបបង្កើត object class សំរាប់ទាញយកទិន្នន័យ ជាទំរង់ JSON

**Instructor:** **Oum Saokosal**, *Master of Engineering in Information Systems, South Korea '2010*

**Email:** oumsaokosal@gmail.com

**Phone:** 012 252 752  (Telegram)

# របៀបបង្កើត object class សំរាប់ទាញយកទិន្នន័យ ជាទំរង់ JSON

យើងដឹងហើយថា ដើម្បីទាញទិន្នន័យពី JSON មកផ្ទុកក្នុង App គឺយើងត្រូវមាន class

- យើងសង្កេតមើល JSON នេះថាតើវា វាចាប់ផ្ដើមចេញ [ ] ឬចេញពី { }

    [ ] មានន័យថា List

    {} មានន័យថា Map

```
{
    "userId": 5,
    "id": 41,
    "title": "non est facere",
    "body": "molestias id nostrum\nexcepturi repellendus..."
}
```

*នៅ slide បន្ទាប់ យើងយើញទំរង់សុគស្មាញរបស់ JSON!*

```
{
  "results": [
    {
      "gender": "male",
      "name": {"title": "mr","first": "brad","last":
"gibson"},
      "location": {
        "street": "9278 new road","city":
"kilcoole","state": "waterford",
        "postcode": "93027",
        "coordinates": {
          "latitude": "20.9267",
          "longitude": "-7.9310"
        },
        "timezone": {
          "offset": "-3:30",
          "description": "Newfoundland"
        }
      },
      "email": "brad.gibson@example.com",
    }
  ]
}
```

```json
{
    "id":"487349",
    "name":"Pooja Bhaumik",
    "score" : 1000
}
```

```dart
class User {
  String id;
  String name;
  int score;

  User({this.id,this.name,this.score});

  factory User.fromMap(Map<String, dynamic> json) => User(
    id: json["id"],
    name: json["name"],
    score: json["score"],
  );

  Map<String, dynamic> toMap() => {
    "id": id,
    "name": name,
    "score": score,
  };
}
```

```json
{
    "city": "Mumbai",
    "streets": [
        "address1",
        "address2"
     ]
}
```

```dart
class Address {
  String city;
  List<String> streets;

  Address({this.city,this.streets,});

  factory Address.fromMap(Map<String, dynamic> json) => Address(
    city: json["city"],
    streets: List<String>.from(json["streets"].map((x) => x)),
  );

  Map<String, dynamic> toMap() => {
    "city": city,
    "streets": List<dynamic>.from(streets.map((x) => x)),
  };
}
```

```json
{
  "shape_name":"rectangle",
  "property":{
    "width":5.0,
    "breadth":10.0
  }
}
```

```dart
class Shape {
  String shapeName;
  Property property;

  Shape({this.shapeName, this.property,});

  factory Shape.fromMap(Map<String, dynamic> json) => Shape(
    shapeName: json["shape_name"],
    property: Property.fromMap(json["property"]),
  );

  Map<String, dynamic> toMap() => {
    "shape_name": shapeName,
    "property": property.toMap(),
  };
}
```

```dart
class Property {
  int width, breadth;

  Property({this.width, this.breadth,});

  factory Property.fromMap(Map<String, dynamic> json) => Property(
    width: json["width"],
    breadth: json["breadth"],
  );

  Map<String, dynamic> toMap() => {
    "width": width,
    "breadth": breadth,
  };
}
```

```json
{
  "id":1,
  "name":"ProductName",
  "images":[
    {"id":11, "imageName":"xCh-rhy"},
    {"id":31,"imageName":"fjs-eun"}
  ]
}
```

```dart
class Product {
  int id;
  String name;
  List<Image> images;

  Product({this.id, this.name, this.images,});

  factory Product.fromMap(Map<String, dynamic> json) => Product(
    id: json["id"],
    name: json["name"],
    images: List<Image>.from(json["images"].map((x) => Image.fromMap(x))),
  );
}
```

```dart
class Image {
  int id;
  String imageName;

  Image({this.id, this.imageName,});

  factory Image.fromMap(Map<String, dynamic> json) => Image(
    id: json["id"],
    imageName: json["imageName"],
  );
}
```

```json
[
  {
    "albumId": 1,"id": 1,
    "title": "accusamus beatae ad facilis cum similique qui sunt",
    "url": "http://placehold.it/600/92c952"
  }
]
```

```dart
class Photo {
  int albumId;
  int id;
  String title;
  String url;

  Photo({this.albumId, this.id, this.title, this.url});

  factory Photo.fromMap(Map<String, dynamic> json) => Photo(
    albumId: json["albumId"],
    id: json["id"],
    title: json["title"],
    url: json["url"],
  );
}
```

```dart
List<Photo> photoFromJson(String str) {
  return List<Photo>.from(json.decode(str).map((x) => Photo.fromMap(x)));
}
```

# ការបំលែងពី JSON ទៅ Dart Class ដោយស្វ័យប្រវត្តិ

ខាងក្រោមនេះគឺជា website ដែលជួយបំលែងពី JSON អោយទៅជា Dart class ដោយស្វ័យប្រវត្តិៈ

- Quicktype:

  https://app.quicktype.io/

- Javier Lecuona:

  https://javiercbk.github.io/json_to_dart/