



CS544 EA

Integration

REST: sending / receiving JSON

Json Annotations

- While the default conversion is pretty good
 - You may not want every property to be included
 - Bi-Directional associations create (infinite) cycles, and therefore crash your program
 - Good to specify a format for Date/Calendar

@JsonIgnore

- Add **@JsonIgnore** onto any property that you do not want to include in Json
 - Similar to @Temporal for JPA

```
@NotBlank
@email
@Column(unique = true, length = 45)
private String email;
@JsonIgnore
@Column(length = 70)
private String password;
@Column(unique = true, length = 70)
private String badgeCode;
```

Don't include the password
when serializing to JSON

@JsonManagedReference

@JsonBackReference

- To stop a bi-directional from creating cycles
 - Use **@JsonManagedReference** on references that should be traversed (therefore included in JSON)
 - Use **@JsonBackReference** on the other side (Tell it: don't go back and include that data again)



@JsonFormat

- Specify how a field should be formatted
 - Mostly useful for **date and time** formatting

```
@Data
public class SecSearchDto {
    private Long personId;
    private MeruStatus status;
    @JsonFormat(shape = JsonFormat.Shape.STRING, pattern = "yyyy-MM-dd")
    private Calendar birth;
    private String name;
    private String email;
    private RoleType role;
```

When shape is String
Use SimpleDateFormat
compatible pattern
to say how exactly

Instead of a NUMERIC
date representation

More Annotations Exist

- There are actually many more Json annotations
 - The default conversion is pretty good
 - If you're interested / need more see:

https://www.tutorialspoint.com/jackson_annotations/index.htm

<https://www.baeldung.com/jackson-annotations>

