

Appendix A: JPA and Spring Annotations

```
@Entity
@Table(name="table_name", schema="cs544")

@Id(name="column_name")
@GeneratedValue(strategy=GenerationType.AUTO)
Note: There are three more "generation types".

@Column(name="column_name", length=xxx, nullable=false)
@Column(table="table_name")

@OrderColumn(name="column_name")
@OrderBy("attributeName [ASC|DESC]") -

@Transient

@OneToMany(mappedBy="attributeName", cascade=CascadeType.XXX)
@ManyToOne(mappedBy="attributeName", cascade=CascadeType.XXX)
@OneToOne(mappedBy="attributeName", cascade=CascadeType.XXX)
@ManyToMany(mappedBy="attributeName", cascade=CascadeType.XXX)
Note: XXX = [ALL, DETACH, MERGE, PERSIST, REFRESH, REMOVE]
Also, if you have more than one cascade type you can do:
cascade={CascadeType.XXX, CascadeType.YYY, ...}

@JoinColumn(name="column_name")
@JoinTable(name="table_name")

@MapKey(name="attributeName") - used to assign a key attribute for a Map

@Inheritance(strategy=InheritanceType.XXX)
Note: XXX = [JOINED, SINGLE_TABLE, TABLE_PER_CLASS]

@SecondaryTable(
    name="table_name",
    pkJoinColumns=@PrimaryKeyJoinColumn(name="column_name")
)

@Embedded
@Embeddable
@EmbeddedId

@ElementCollection
@CollectionTable(name = "table_name") -
For collections of primitive values or collections of embeddables

@Version @Enumeration
```

Spring

```
@Bean, @Value, @Component, @Controller, @Service, @Repository, @Autowired,
@Configuration

@PostConstruct, @PreDestroy, @Transactional, @ComponentScan(basePackages =
"edu.miu.common, edu.miu.compro")
```