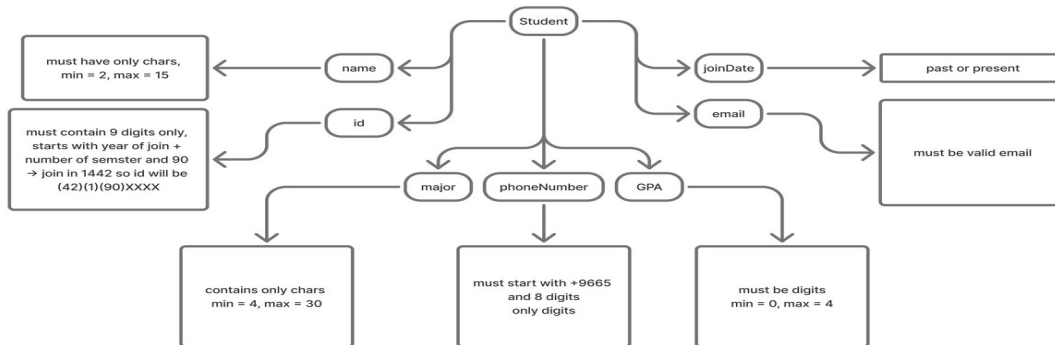


It is Jubail Industrial college educate it has student, instructor, users, housing system etc I chose this web site to do this diagrams and do validate to each case

- Student



```

Student {

    @NotEmpty(message = "Name is required")
    @Pattern(regexp = "^[A-Za-z]{2,15}$", message = "Name must be only letters, 2
to 15 characters")
    private String name;

    @NotEmpty(message = "ID is required")
    @Pattern(regexp = "\\d{9}$", message = "ID must be exactly 9 digits")
    @Pattern(regexp = "\\d{2}[1-2]90\\d{4}$", message = "ID must follow format:
YY+Semester+90+XXXX")
    private String id;

    @NotEmpty(message = "Major is required")
    @Pattern(regexp = "[A-Za-z]{4,30}$", message = "Major must be only letters, 4
to 30 characters")
    private String major;

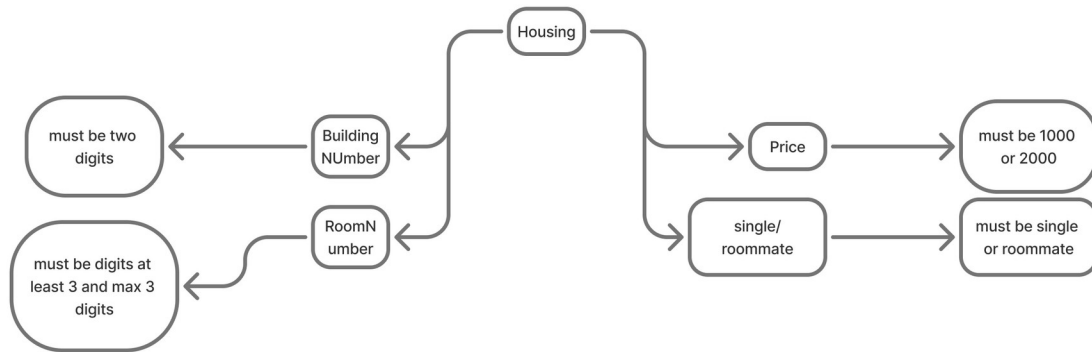
    @NotEmpty(message = "Phone number is required")
    @Pattern(regexp = "\\+9665\\d{8}$", message = "Phone must start with +9665 and
be followed by 8 digits")
    private String phoneNumber;

    @NotNull(message = "GPA is required")
    @DecimalMin(value = "0.0", message = "GPA must be at least 0.0")
    @DecimalMax(value = "4.0", message = "GPA must be at most 4.0")
    private Double GPA;

    @NotEmpty(message = "Email is required")
    @Email(message = "Invalid email format")
    private String email;
  
```

```
@NotNull(message = "Join date is required")
@PastOrPresent(message = "Join date must be in the past or present")
private LocalDate joinDate;
}
```

- Housing



```

Housing {

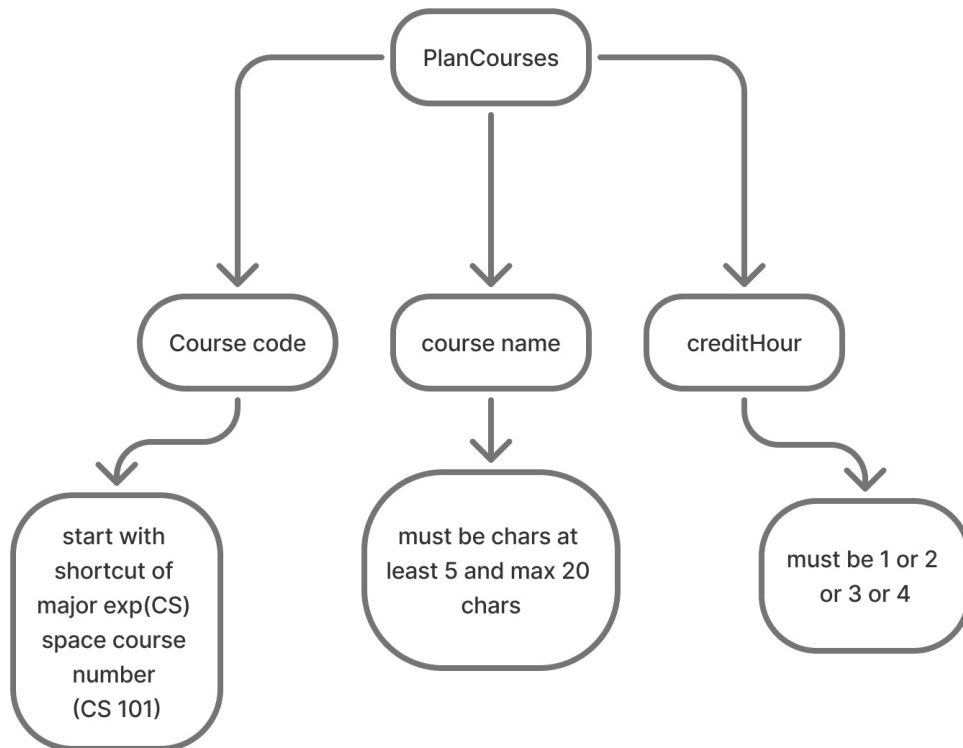
    @NotEmpty(message = "Building number is required")
    @Pattern(regexp = "\\d{2}$", message = "Building number must be exactly 2
digits")
    private String buildingNumber;

    @NotEmpty(message = "Room number is required")
    @Pattern(regexp = "\\d{3}$", message = "Room number must be exactly 3 digits")
    private String roomNumber;

    @NotEmpty(message = "Price is required")
    @Pattern(regexp = "(1000|2000)$", message = "Price must be 1000 or 2000")
    private String price;

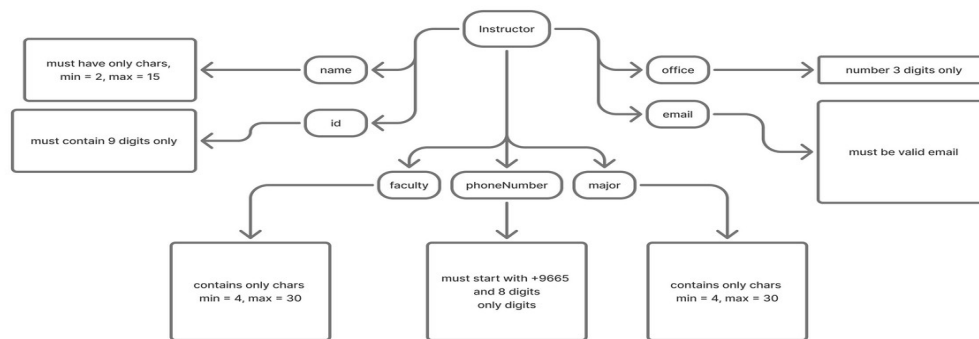
    @NotEmpty(message = "Type is required")
    @Pattern(regexp = "(single|roommate)$", message = "Must be either 'single' or
'roommate'")
    private String type;
}
  
```

- PlanCourse



```
PlanCourse {  
    @NotEmpty(message = "Course code is required")  
    @Pattern(regexp = "^[A-Z]{2,5} \\d{3}$", message = "Course code must be like  
'CS 101'")  
    private String courseCode;  
  
    @NotEmpty(message = "Course name is required")  
    @Pattern(regexp = "^[A-Za-z ]{5,20}$", message = "Course name must be 5 to 20  
alphabetic characters")  
    private String courseName;  
  
    @Min(value = 1, message = "Credit hours must be between 1 and 4")  
    @Max(value = 4, message = "Credit hours must be between 1 and 4")  
    private int creditHours;  
}
```

- Instructor



```

Instructor {

    @NotEmpty(message = "Name is required")
    @Pattern(regexp = "^[A-Za-z]{2,15}$", message = "Name must be only letters, 2
to 15 characters")
    private String name;

    @NotEmpty(message = "ID is required")
    @Pattern(regexp = "^\\d{9}$", message = "ID must be exactly 9 digits")
    private String id;

    @NotEmpty(message = "Faculty is required")
    @Pattern(regexp = "^[A-Za-z]{4,30}$", message = "Faculty must be only letters,
4 to 30 characters")
    private String faculty;

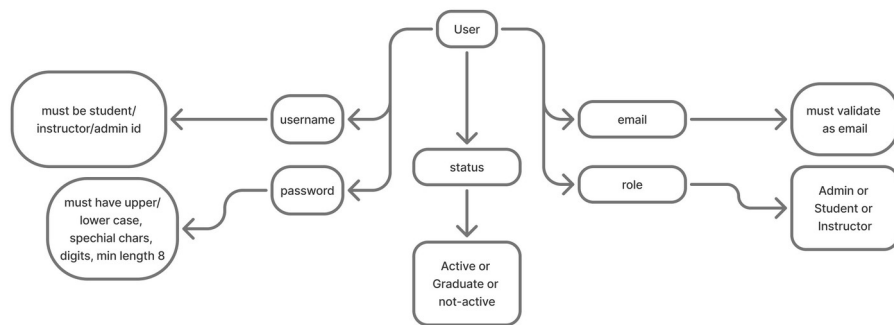
    @NotEmpty(message = "Phone number is required")
    @Pattern(regexp = "^\\+9665\\d{8}$", message = "Phone must start with +9665 and
be followed by 8 digits")
    private String phoneNumber;

    @NotEmpty(message = "Major is required")
    @Pattern(regexp = "^[A-Za-z]{4,30}$", message = "Major must be only letters, 4
to 30 characters")
    private String major;

    @NotEmpty(message = "Email is required")
    @Email(message = "Invalid email format")
    private String email;

    @NotEmpty(message = "Office number is required")
    @Pattern(regexp = "^\\d{3}$", message = "Office number must be exactly 3
digits")
    private String office;
}
  
```

- User



```

User {

    @NotEmpty(message = "Username is required")
    @Pattern(regexp = "^\\d{9}$", message = "Username must be a 9-digit ID")
    private String username;

    @NotEmpty(message = "Password is required")
    @Pattern(
        regexp = "^(?=.*[a-z])(?=.*[A-Z])(?=.*\\d)(?=.*[@$!%*?&])[A-Za-z\\d@$!%*?&]{8,}$",
        message = "Password must contain uppercase, lowercase, digit, special character, and be at least 8 characters"
    )
    private String password;

    @NotEmpty(message = "Status is required")
    @Pattern(
        regexp = "^(Active|Graduate|not-active)$",
        message = "Status must be either Active, Graduate, or not-active"
    )
    private String status;

    @NotEmpty(message = "Email is required")
    @Email(message = "Invalid email format")
    private String email;

    @NotEmpty(message = "Role is required")
    @Pattern(
        regexp = "^(Admin|Student|Instructor)$",
        message = "Role must be either Admin, Student, or Instructor"
    )
    private String role;
}
  
```

