

1. Open <https://sequencediagram.org/>
2. Paste the following:

title Rails New/Create Flow with Validation

actor User

participant Browser

control "Rails Router" as Router

participant "PostsController" as Controller # Assuming a Posts resource

participant "new.html.erb" as NewView

entity "Post Model" as Model # The ActiveRecord model

database Database

# --- Phase 1: Requesting the 'new' form ---

User->Browser: Clicks "New Post" Link

activate Browser

Browser->Router: GET /posts/new

activate Router

Router->Controller: new() action

deactivate Router

activate Controller

Controller->Model: new()

activate Model

Model-->Controller: Returns empty @post object

deactivate Model

Controller->NewView: render :new (passing @post)

activate NewView

NewView-->Controller: Generates HTML form markup

deactivate NewView

Controller-->Browser: Sends HTML with Response (200 OK)

deactivate Controller

Browser->User: Displays empty form for Post

deactivate Browser

# --- Phase 2: Submitting the form ---

space 10

User->Browser: Fills form, Clicks "Create Post"

activate Browser  
Browser->Router: POST /posts (with form data)  
activate Router  
Router->Controller: create() action  
deactivate Router  
activate Controller  
Controller->Model: new(post\_params)  
activate Model  
Model->Controller: Returns populated @post object  
deactivate Model  
Controller->Model: save()  
activate Model  
note right of Model: Run Model Validations

alt Validations Pass

Model->Database: INSERT INTO posts (...) VALUES (...)  
activate Database  
Database->Model: Success (e.g., returns ID)  
deactivate Database  
Model->Controller: save() returns true  
deactivate Model  
Controller->Browser: Sends Redirect Response (302 Found)\nLocation: /posts (or post show page)  
deactivate Controller  
Browser->Router: GET /posts (Follows Redirect)  
note over Browser, Database: New request cycle begins (Index/Show action)...\n  
deactivate Browser

else Validations Fail

Model->Controller: save() returns false\n(@post object has errors)  
deactivate Model  
note left of Controller: @post contains user's\nsubmitted data + errors  
Controller->NewView: render :new (passing @post)\nstatus: :unprocessable\_entity (422)  
activate NewView  
NewView->Controller: Generates HTML form markup\n(including errors and re-populating fields)  
deactivate NewView  
Controller->Browser: Sends HTML with Response (422 Unprocessable Entity)

deactivate Controller

Browser->User: Displays form again with\invalidation errors and previous data

deactivate Browser

end