

## TECHNICAL ASSESSMENT

July 2022

### Instructions:

- This Technical Assessment constitutes of 2 tasks.
  - This assessment is a property of Villvay Systems therefore copying or sharing of the same is prohibited.
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### Task 01:

- Create a REST API for a blogging website which will just have three resources/entities.

#### POST

```
{
  "id" : number
  "title" : String
  "body" : String
  "authorId" : number
  "createdOn" :TimeStamp,
  "modifiedOn" :TimeStamp
}
```

#### COMMENT

```
{
  "postId":number
  "id": number
  "name": String
  "email":String,
  "body": String,
  "createdOn" :TimeStamp,
  "modifiedOn" :TimeStamp
}
```

#### AUTHOR

```
{  
  "id": number,  
  "name": String,  
  "username":String,  
  "email": String,  
  "address": String  
}
```

- The relationship between entities is such. An Author can have many Posts. Each Post can have many comments.
- Your Task is to ;
  1. Create a SpringBoot based REST API exposing Resources listed above.
  2. The Following APIs should expose for each resource. (for POST & PUT you can use [LowDB](#) as mock db)

- GET/
  - All
  - ById
  - Get Relations by Id eg: GET/ Posts/{id}/comments
- POST/
- PUT/
- DELETE/

3. Write a header to pre-processing filter to authenticate if the requests are authenticated. Only authenticated requests should be allowed (username, password can be hardcoded).
4. Commit the code to a private GitHub repository and share it on demand with the email address specified later.

## **Task 02:**

Answer the following questions.

1. What are the steps involved in pre-processing a web request to process username header and profile loading of that that username before sending the request to the controller?
2. What are the advantages of using these filters?
3. Please design a sequence diagram and class diagram for this pre-processing filter.