@startuml

interface Platform {

+void sendNotification(Notification notification)

}

class Notification {

-String id

-String message

-NotificationType type

-String platform

+String getId()

+String getMessage()

+NotificationType getType()

+String getPlatform()

}

class EmailPlatform {

+void sendNotification(Notification notification)

}

class PushPlatform {

+void sendNotification(Notification notification)

}

class SmsPlatform {

+void sendNotification(Notification notification)

}

class PlatformConfig {

-Platform emailPlatform

-Platform smsPlatform

-Platform pushPlatform

+Map<String, Platform> platformMap(Platform emailPlatform, Platform smsPlatform, Platform pushPlatform)

}

class NotificationRequest {

-String message

-NotificationType type

-String platform

+String getMessage()

+NotificationType getType()

+String getPlatform()

}

class NotificationType {

{static} CONFIRMATION

{static} ALERT

{static} INFO

}

class NotificationServiceApplication {

+void main(String[] args)

}

class NotificationException {

-String message

-Throwable cause

+NotificationException(String message, Throwable cause)

}

class NotificationService {

-Map<String, Platform> platformMap

+void registerNotification(NotificationRequest request)

+void sendNotification(NotificationRequest request)

}

class NotificationServiceSend {

+void executeSend(Notification notification, String platform)

}

class NotificationController {

+ResponseEntity<String> registerNotification(NotificationRequest request)

+ResponseEntity<String> sendNotification(NotificationRequest request)

}

interface EntityRepository {

+NotificationEntity save(NotificationEntity entity)

+Optional<NotificationEntity> findById(Long id)

}

class JpaNotificationAdapter {

+Notification save(Notification notification)

+Optional<Notification> findById(Long id)

}

class NotificationEntity {

-Long id

-String message

-NotificationType type

-String platform

+Long getId()

+String getMessage()

+NotificationType getType()

+String getPlatform()

}

NotificationServiceApplication --> NotificationRequest

NotificationRequest --> NotificationType

NotificationServiceApplication --> NotificationController

NotificationController --> NotificationService

'NotificationController --> NotificationRequest

NotificationController --> NotificationServiceSend

NotificationServiceSend-->JpaNotificationAdapter

'NotificationService o--> Platform

NotificationServiceSend --> Notification

NotificationService --> Notification

'NotificationServiceSend o--> PlatformConfig

Notification <--o Platform

JpaNotificationAdapter --> EntityRepository

JpaNotificationAdapter --> NotificationEntity

'NotificationException <|-- EmailPlatform

'NotificationException <|-- PushPlatform

NotificationException <|-- NotificationService

NotificationException <|-- NotificationServiceSend

Platform <|.. EmailPlatform

Platform <|.. PushPlatform

Platform <|.. SmsPlatform

'PlatformConfig <-- Platform

@enduml