**Project Code Challenge Implementation Plan**

1. **Week 1:**
   1. **BackEnd:**
      1. Construction code base with framework nestjs.
      2. Create model schema user.
      3. Create model schema challenge.
      4. Create model schema notification.
      5. Create model schema Request.
      6. Create model schema response.
      7. Create model schema message.
      8. Create model schema comment.
      9. Create model schema permissions.
      10. Create model schema solutions.
      11. Create model schema subscriber
      12. Create api subscribe.
   2. **FrontEnd:**
      1. Create main layout.
      2. Create home page.
      3. Create component header.
      4. Create component navigation
      5. Create component footer.
      6. Create component subscribe.
      7. Configure font styles.
      8. Configure router(React-router-dom).
2. **Week 2:**
   1. **BackEnd:**
      1. Create api register.
      2. Create api login.
      3. Create api get list reviewer.
      4. Create api get list challenge.
      5. Create api get detail user.
   2. **FrontEnd:**
      1. Create login page.
      2. Create register page.
      3. Create reviewer page.
      4. Create component listchallenge.
      5. Create component reviewer.
3. **Week 3:**
   1. **BackEnd:**
      1. Create api get topics.
      2. Create api get challenge by language.
      3. Create api get challenge by difficult.
      4. Create api get latest challenge.
   2. **FrontEnd:**
      1. Create component aboutMe.
      2. Create component language.
      3. Create component notification.
      4. Create component demo.
      5. Create challenge page.
4. **Week 4:**
   1. **BackEnd:**
      1. Create api get detail challenge.
      2. Create api submit.
      3. Create api download file
      4. Create api get list request
      5. Create api get detail request
      6. Create api get comment challenge.
      7. Create api get latest comment challenge.
      8. Create api get appreciate.
   2. **FrontEnd:**
      1. Create practive page.
      2. Create component comment
      3. Create component submit
      4. Create component discuss
      5. Create assignment details page.
5. **Week 5:**
   1. **BackEnd:**
      1. Create api get list request from student(awaiting approval).
      2. Create api get list request from student(approved).
      3. Create api get list request from student(refused).
      4. Create api review student.
      5. Create api add challenge.
      6. Create api edit challenge.
      7. Create api delete challenge.
      8. Create api add user.
      9. Create api edit user.
      10. Create api delete user.
      11. Create api get list user(by select).
      12. Create api response.
      13. Create api get list response.
   2. **FrontEnd:**
      1. Create see-request page.
      2. Create account page.
      3. Create admin page.
      4. Create chat page.
6. **Week 6:**
   1. **BackEnd:**
      1. Create api full text search.
      2. Create response apis.
      3. Create challenge apis
      4. Create gate connection socket.
      5. Create gateway chat.
      6. Create gateway notification.
   2. **FrontEnd:**
      1. Create search interface
      2. Improve practice page(future).