DSCC Practical 6

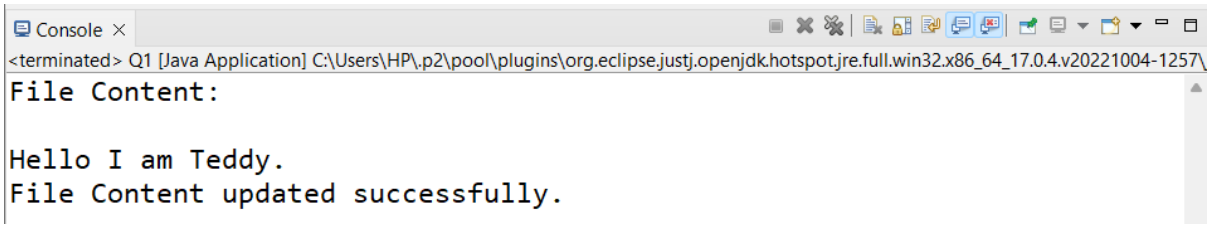
1. **Write a java program to access the files from your Google drive account and read and write the file contents from your program.**

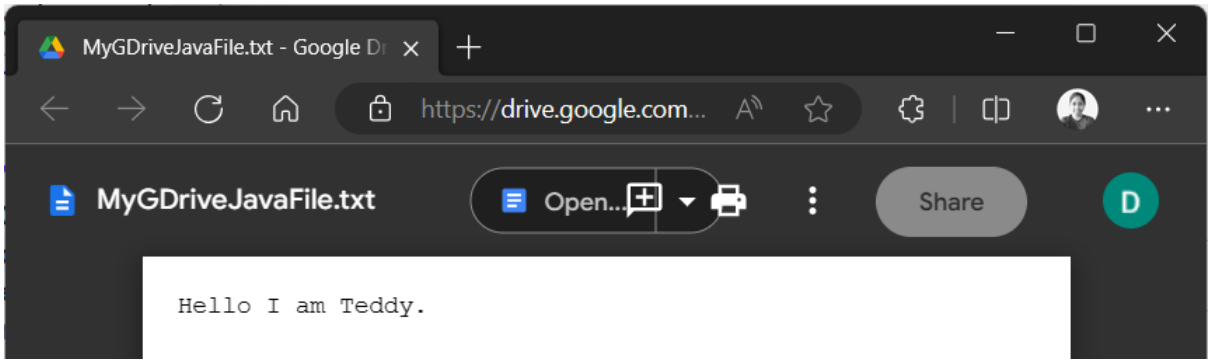
Code:

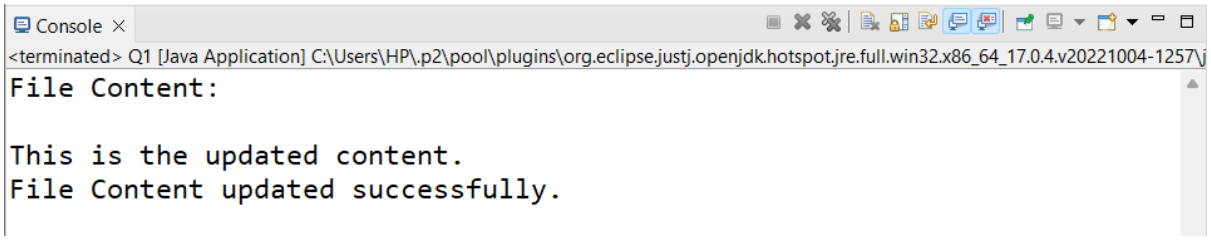
```
package in.ac.famt.practical6;
import com.google.api.client.auth.oauth2.Credential;
import com.google.api.client.extensions.java6.auth.oauth2.AuthorizationCodeInstalledApp;
import com.google.api.client.extensions.jetty.auth.oauth2.LocalServerReceiver;
import com.google.api.client.googleapis.auth.oauth2.GoogleAuthorizationCodeFlow;
import com.google.api.client.googleapis.auth.oauth2.GoogleClientSecrets;
import com.google.api.client.googleapis.javanet.GoogleNetHttpTransport;
import com.google.api.client.http.AbstractInputStreamContent;
import com.google.api.client.http.FileContent;
import com.google.api.client.http.HttpResponse;
import com.google.api.client.http.InputStreamContent;
import com.google.api.client.http.javanet.NetHttpTransport;
import com.google.api.client.json.JsonFactory;
import com.google.api.client.json.jackson2.JacksonFactory;
import com.google.api.client.util.store.FileDataStoreFactory;
import com.google.api.services.drive.Drive;
import com.google.api.services.drive.DriveScopes;
import com.google.api.services.drive.model.File;
import com.google.api.services.drive.model.FileList;
import java.io.*;
import java.nio.charset.StandardCharsets;
import java.security.GeneralSecurityException;
import java.util.Collections;
import java.util.List;

public class Q1 {
   private static final JsonFactory JSON_FACTORY = JacksonFactory.getDefaultInstance();
   private static final java.io.File CREDENTIALS_FOLDER = new
java.io.File("D:\\SYMCA\\Semester-III\\L2 DSCC\\DSCC Practicals");
   private static final List<String> SCOPES = Collections.singletonList(DriveScopes.DRIVE);
   private static Credential getCredentials(final NetHttpTransport HTTP_TRANSPORT) throws
IOException {
```

```
    java.io.File clientSecretFilePath = new java.io.File("D:\\SYMCA\\Semester-III\\L2 DSCC\\DSCC Practicals\\credentials.json");
    if (!clientSecretFilePath.exists()) {
      throw new FileNotFoundException("Please copy credentials.");
    }
    InputStream in = new FileInputStream(clientSecretFilePath);
    GoogleClientSecrets clientSecrets = GoogleClientSecrets.load(JSON_FACTORY, new InputStreamReader(in));
    GoogleAuthorizationCodeFlow flow = new GoogleAuthorizationCodeFlow.Builder(HTTP_TRANSPORT, JSON_FACTORY,
        clientSecrets, SCOPES).setDataStoreFactory(new FileDataStoreFactory(CREDENTIALS_FOLDER))
        .setAccessType("offline").build();
    return new AuthorizationCodeInstalledApp(flow, new LocalServerReceiver()).authorize("user");
  }
  public static void main(String[] args) throws IOException, GeneralSecurityException {
    final NetHttpTransport HTTP_TRANSPORT = GoogleNetHttpTransport.newTrustedTransport();
    Credential credential = getCredentials(HTTP_TRANSPORT);
    Drive service = new Drive.Builder(HTTP_TRANSPORT, JSON_FACTORY, credential).setApplicationName("GDrive Access").build();
    // Example: Reading file contents
    String fileId = "1hBt_BZ1z_49uUJeYQ9aYwhmomIAqlA0J";  // Replace with actual file ID
    ByteArrayOutputStream outputStream = new ByteArrayOutputStream();
    service.files().get(fileId).executeMediaAndDownloadTo(outputStream);
    String fileContent = new String(outputStream.toByteArray(), StandardCharsets.UTF_8);
    System.out.println("File Content:\n\n" + fileContent);
    // Example: Writing file contents
    String updatedContent = "This is the updated content.";
    InputStreamContent mediaContent = new InputStreamContent("text/plain", new ByteArrayInputStream(updatedContent.getBytes(StandardCharsets.UTF_8)));
    File fileMetadata = new File();
    fileMetadata.setName("MyGDriveJavaFile.txt");  // Replace with the actual file name
    service.files().update(fileId, fileMetadata, mediaContent).execute();
    System.out.println("File Content updated successfully.");
  }
}
```

Output:


Console
<terminated> Q1 [Java Application] C:\Users\HP\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.4.v20221004-1257\
File Content:
Hello I am Teddy.
File Content updated successfully.


MyGDriveJavaFile.txt - Google Dr
https://drive.google.com...
MyGDriveJavaFile.txt
Open...
Share
D
Hello I am Teddy.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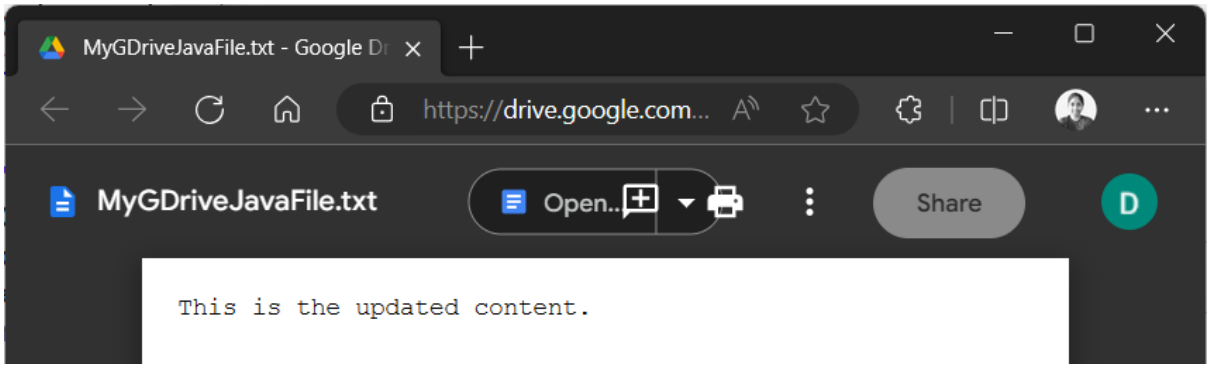
MyGDriveJavaFile.txt - Google Dr
https://drive.google.com...
MyGDriveJavaFile.txt
Open...
Share
D
This is the updated content.