**App appearance**

* At the top bar is written “Audio Encryptor”
* At the first line there are two button arranged horizontally, first is for starting (text – “Start”), and ending recording (text – “Stop”)
* On the next line there is a timer indicating time that recording is going
* On the next line there is an upload button (text – “Upload”)
* And the last item at the bottom of the app is recycler view, with list of recorded and uploaded recordings (text for each item – “File Name decrypted 00:00” – File name, label for knowing if file is encrypted or not, and last one is duration of the audio file). Item also has “Rename” button.

**Functionality**

* When the “Start” button is pressed recording and timer are starting
* When the “Stop” button is pressed, dialog opens. It asks where to save recording, there are two buttons on dialog box. First one is “Phone storage”, which opens file explorer and user chooses the location (after that dialog is closed. If user cancels the file explorer, recording is discarded). Second one is “App storage”, which saves file in app’s internal storage and closes dialog. Third one is “Cancel” button, which discards recording and closes dialog.
* After dialog is closed the timer resets
* Upload button opens file explorer to choose file
* Recycler view shows all recordings and uploaded files
* If the decrypted item in recycler view is tapped, dialog opens and asks where to save file. Dialog has three button. First one is “Phone storage”, which opens file explorer, after user chose the location, dialog and file explorers are being closed. Second one is “App storage”, which saves encrypted file in app’s internal storage and closes the dialog. Third one is “Cancel” button, which closes the dialog and does nothing.
* After file location is chosen, Dialog appears which says “Processing…”, and closes automatically when file is encrypted and saved.
* If encrypted item in recycler view is tapped, dialog opens and asks where to save file. Dialog has three button. First one is “Phone storage”, which opens file explorer, after user chose the location, dialog and file explorers are being closed. Second one is “App storage”, which saves decrypted file in app’s internal storage and closes the dialog. Third one is “Cancel” button, which closes the dialog and does nothing.
* After file location is chosen, Dialog appears which says “Processing…”, and closes automatically when file is decrypted and saved.
* If item in recycler view is long pressed dialog opens and asks “Do you want to delete this file permanently?” with “Yes” and “Cancel” buttons.
* If the “Rename” button is pressed on recycler view item, the dialog opens, and asks for new name.

**File encrypting**

* **Encrypting principal**
  + 1. Convert .wav file to byte array.
    2. Convert byte array to integer array.
    3. Run 3 equations from total 18 equations, for each item in byte array
    4. Write a, b, c, d, e, f arguments to file name
    5. Write numbers of equations used in file name
    6. For every file randomly choose to turn all numbers in byte array to their opposite
    7. After encrypting add “ee” at the end of file
    8. If numbers are made opposite write “t” at the end of file name
    9. If numbers are not made opposite write “f” at the end of file name
* **File name**

NameSetByUser\_\_XYZabcdefA

Numbers of formulas used

Arguments a, b, c, d, e, f

* **Encrypting formulas**
* **Njvbs** CnH2n+2