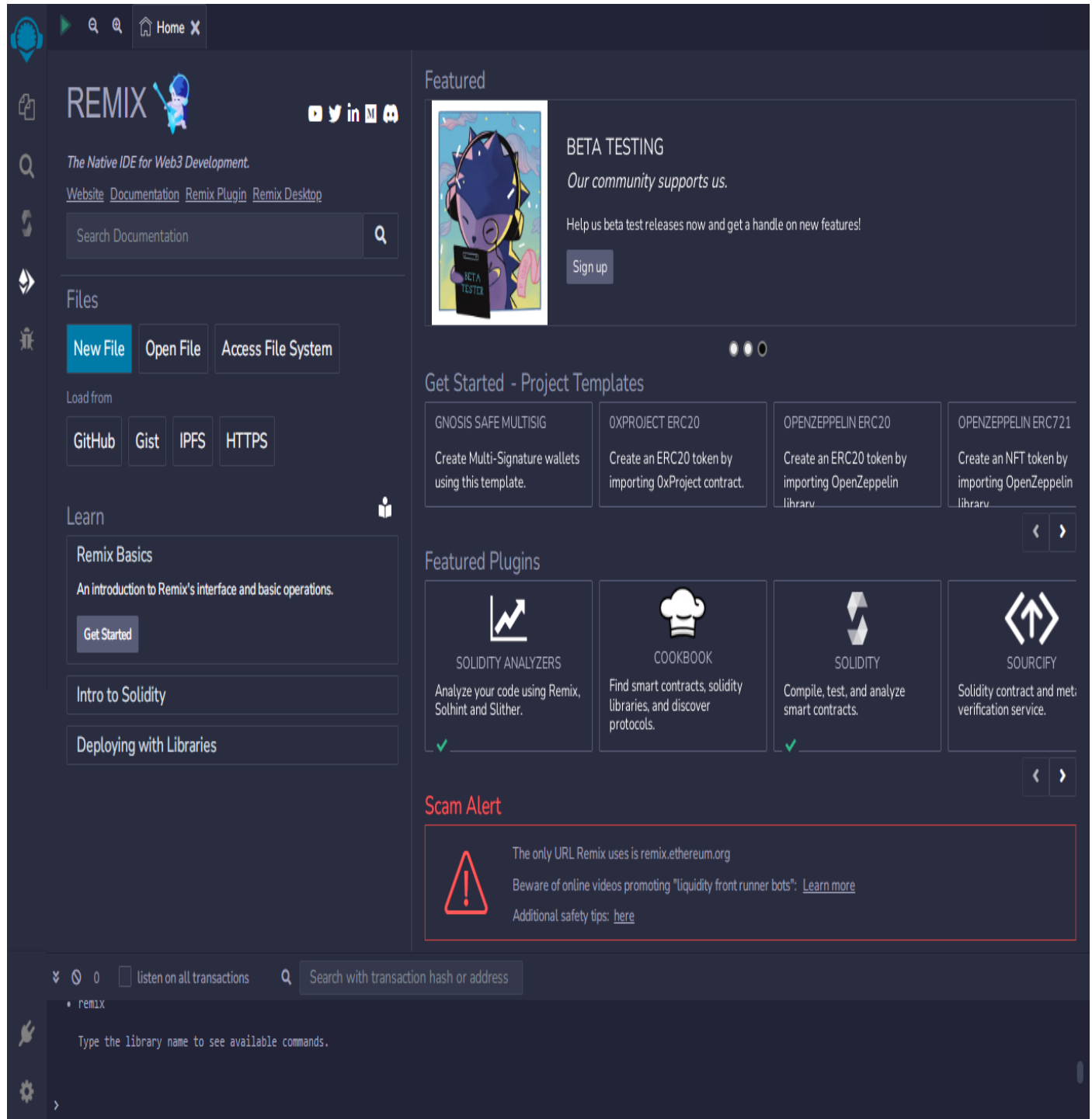


<b>NAME</b>	K.AARTHI
<b>ZONE</b>	4
<b>COLLEGE</b>	GKM COLLEGE OF ENGINEERING AND TECHNOLOGY

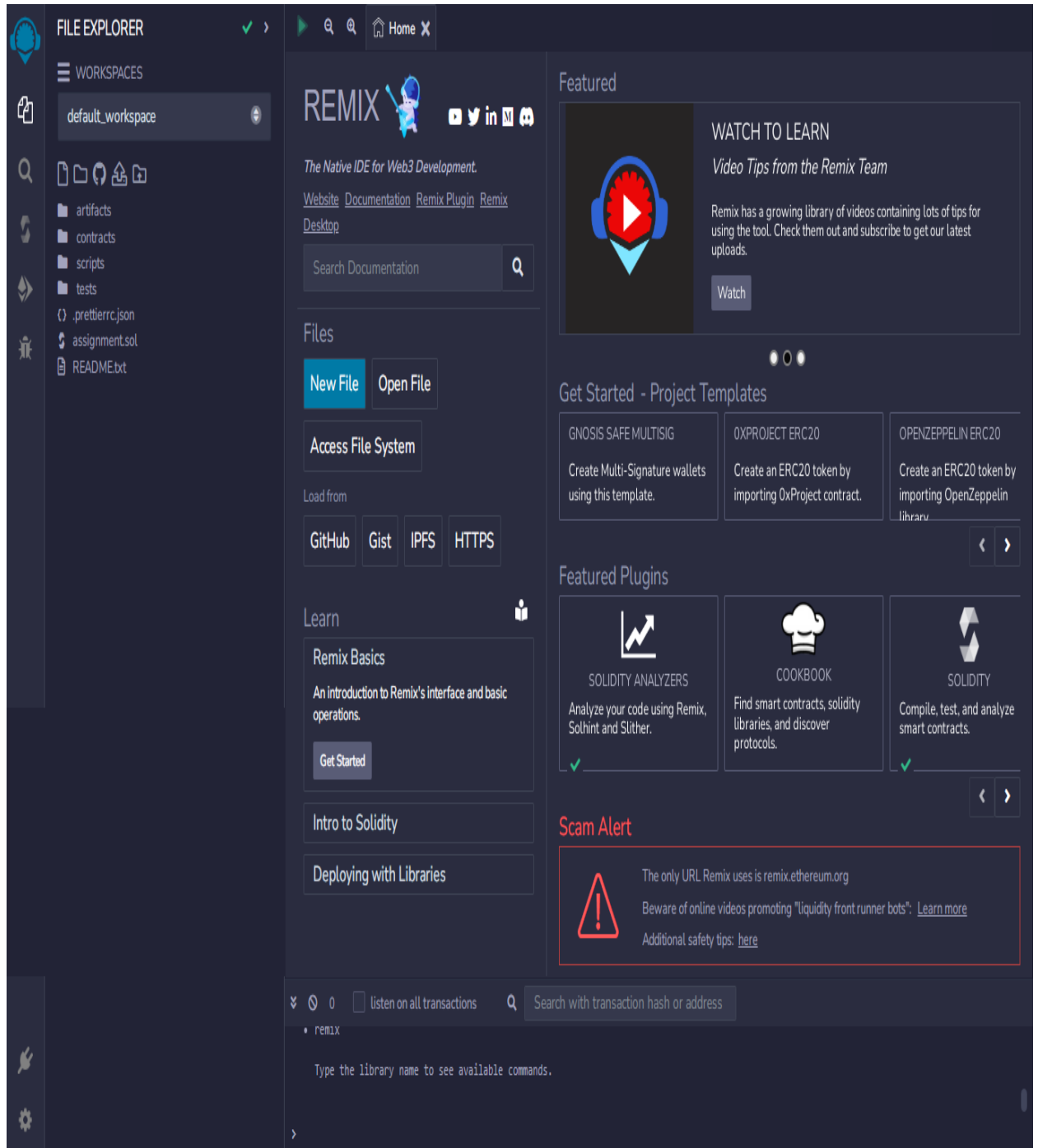
# 1. GO TO THE CHROME ATFORM OPEN REMIX PLARTFORM



The screenshot displays the Remix IDE interface, which is a web-based development environment for Ethereum. The interface is divided into several sections:

- Header:** Includes a search bar, a "Home" button, and social media links (YouTube, Twitter, LinkedIn, GitHub).
- Left Sidebar:**
  - REMIX:** The Native IDE for Web3 Development. Links to Website, Documentation, Remix Plugin, and Remix Desktop.
  - Search Documentation:** A search bar for finding documentation.
  - Files:** Buttons for "New File", "Open File", and "Access File System".
  - Load from:** Buttons for "GitHub", "Gist", "IPFS", and "HTTPS".
  - Learn:** A section with links to "Remix Basics", "Intro to Solidity", and "Deploying with Libraries".
- Main Content Area:**
  - Featured:** A section with a "BETA TESTING" announcement and a "Sign up" button.
  - Get Started - Project Templates:** A section with four templates: "GNOSIS SAFE MULTISIG", "OXPROJECT ERC20", "OPENZEPPELIN ERC20", and "OPENZEPPELIN ERC721".
  - Featured Plugins:** A section with four plugins: "SOLIDITY ANALYZERS", "COOKBOOK", "SOLIDITY", and "SOURCIFY".
  - Scam Alert:** A red warning box with a triangle icon, stating: "The only URL Remix uses is remix.ethereum.org. Beware of online videos promoting 'liquidity front runner bots': [Learn more](#). Additional safety tips: [here](#)".
- Bottom Bar:** Includes a "listen on all transactions" checkbox, a search bar for "Search with transaction hash or address", and a "remix" button.

## 2. OPEN THE REMIX PAGE AND CREATE A NEW FILE



### 3. IN THE NEWLY CREATED FILE,CREATE A PROGRAM TO RETURN YOUR STRING ,”ZONE NAME”

The screenshot displays the Remix IDE interface. On the left, the 'SOLIDITY COMPILER' sidebar shows the compiler version '0.8.18+commit.87f61d96' and options for 'Include nightly builds', 'Auto compile', and 'Hide warnings'. Below these are buttons for 'Compile assignment.sol', 'Compile and Run script', and 'Advanced Configurations'. The 'CONTRACT' section shows 'ZoneNameContract (assignment.sol)' with buttons for 'Publish on Ipfs', 'Publish on Swarm', and 'Compilation Details'. The main editor displays a Solidity contract named 'ZoneNameContract' with a function 'getZoneName()' that returns the string 'Zone 4'. The bottom panel shows the 'ABI' and 'Bytecode' tabs, and a terminal window with the following output:

```
Welcome to Remix 0.36.3

Your files are stored in indexedDB, 131.26 KB / 87.6 GB used

You can use this terminal to:
• Check transactions details and start debugging.
• Execute JavaScript scripts:
  - Input a script directly in the command line interface
  - Select a Javascript file in the file explorer and then run `remix.execute()` or `remix.executeCurrent()` in the command line interface
  - Right click on a Javascript file in the file explorer and then click 'Run'

The following libraries are accessible:
• web3 version 1.5.2
• ethers.js
• remix

Type the library name to see available commands.
creation of ZoneNameContract pending...
```

The terminal also shows a successful transaction:

```
[vm] from: 0x583...eddC4 to: ZoneNameContract.(constructor) value: 0 wei data: 0x608...20033 logs: 0 hash: 0x63e...4ffb
```

call to ZoneNameContract.getZoneName

call [call] from: 0x58380a6a701c568545dCfc803Fc8875F56beddC4 to: ZoneNameContract.getZoneName() data: 0x235...ed70f

#### 4. SAVE THE PROGRAM AND COMPILE IT TO GET THE ABI AND BYTECODE

## ABI:

```
[
  {
    "inputs": [],
    "name": "getZoneName",
    "outputs": [
      {
        "internalType": "string",
        "name": "",
        "type": "string"
      }
    ],
    "stateMutability": "pure",
    "type": "function"
  }
]
```

## BYTECODE:

[illegible]

## 5. FINALLY DEPLOY IT TO DISPLAY THE OUTPUT

The screenshot displays the Remix IDE interface, which is used for developing, deploying, and interacting with smart contracts on the Ethereum blockchain.

**Left Panel (Deploy & Run Transactions):**

- ENVIRONMENT:** Set to "Remix VM (Shanghai)".
- VM:** The virtual machine environment.
- ACCOUNT:** The account address is "0x5B3...eddC4 (99.99999999%)".
- GAS LIMIT:** Set to "3000000".
- VALUE:** Set to "0" Wei.
- CONTRACT:** The contract is "ZoneNameContract - assignment.sol".
- Buttons:** "Deploy", "Publish to IPFS", "At Address", and "Load contract from Address".

**Center Panel (Code Editor):**

```
1 // SPDX-License-Identifier: MIT
2 pragma solidity ^0.8.0;
3
4 contract ZoneNameContract {
5     function getZoneName() public pure returns (string memory) { infinite gas
6         return "Zone 4";
7     }
8 }
```

**Bottom Panel (Transactions and Debug):**

- Transactions recorded:** Shows 1 transaction.
- Deployed Contracts:** Shows the "ZONENAMECONTRACT AT 0XD91..." with a balance of "0 ETH".
- Low level interactions:** Shows the "CALLDATA" and a "Transact" button.
- Debug:** Shows the transaction details: "CALL [call] from: 0x5B380a6a701c568545dcfc803Fc8875f56beddC4 to: ZoneNameContract.getZoneName() data: 0x235...ed70f".