***Road Map For Student Cafeteria Facial Recognition System With Seudo-Code***

***Read Camera Until The End of The Meal Time***

***If Face Detected***

***Wait For The User to Enter QR Code With In 2 Seconds***

***If The User Did Not Enter QR Code***

***Alert Error Sound***

***Else***

***Read The User QR Code***

***Decrypt QR Code***

***If The QR Code is Real Meal Card QR Code***

***Check The User Associated With This QR Code***

***If The Detected Face is The Same as The Face Associated With The Qr Code***

***Check The User if He/She Ate Their Meal***

***If The User Did Not Eat His/Her Meal***

***Have A Good Meal***

***Then Update User To Ate State***

***Else The User Ate His/Her Meal***

***Alert Error Sound***

***Then Add Detected Face To The Cheaters List (Tried More)***

***Else.***

***Alert Error Sound***

***Then Add Detected Face To The Cheaters List (Using Others Meal Card)***

***Else***

***Add Detected Face To Cheaters (Using Invalid Meal Card)***

***Technologies We Used To Implement This System***

***1. Back-End Technologies***

***\* Python 2.7***

***>> All The Codes Mainly Written in Python***

***\* External Python Modules***

***\* OpenCV 3.4.0***

***>> To Capture and Record Video From The Webcam***

***\* Haar Cascade***

***>> To Detect and Recognize The User Face By Using Known Algorithms***

***\* Flask***

***>> To Send The Collected Data To The Browser By Creating A Local Webserver***

***\* ZBar***

***>> To Detect and Decode The QR Code***

***\* MySQLdb***

***>> To Connect MySQL With Python***

***\* MySQL***

***>> To Store All The Information Need For The Cafeteria***

***2. Front-End Technologies***

***\* HTML5***

***>> To View The Collected Data In The Browser***

***\* CSS***

***\* Bootstrap***

***>> To Make The HTML Page Stylish and Responsive***

***\* JavaScript***

***>> To Make The Web Page Interactive***