Software Development Club Event

The **Software Development Club (SDC)** conducted training sessions on Application Development Using Python, GML Using Game Maker Studio, Azure Machine Learning Studio and Poster Design Using Photoshop, on 17-02-2018, 24-02-2018, 03-03-2018 and 17-03-2018 (Saturday Afternoons). The two final sessions were conducted on 3rd March 2018 and 17th March 2018. The details of the sessions are as follows.

SESSION ON APPLICATION DEVELOPMENT, USING PYTHON

The session was handled by Ms. Deepa Acharya (AP, CSE). The session covered the basics OF plotting graph in python. The session started with the installation of a python module called Matplotlib which is necessary for designing a 2D plot. Using this module students were asked to draw 2D histograms, bar graphs, linear graph and scattered graphs.

The last session was intended to give A basic idea about developing a python web application, using database connectivity. Participants installed the required software like NetBeans and XAMPP server. A simple web application on Library Management System was developed and executed. In this session, participants were asked to develop a library staff module. They built different options for the library staff, such as viewing the book list, adding new books, updating Book information, and deleting a book that is no longer available.

Students were asked to add the functionalities for the student module in the Library Management System, like viewing the book list, requesting for A book, returning A book and renewal of A book.

SESSION ON GML, USING GAME MAKER STUDIO

THIS session was handled by Mr.Saurav Mishra (IV semester, CSE). The session continued with flappy bird game, as A continuation of the previous session. The random function to generate random pipes through which the bird would pass in order to enable the player to score points, was taught in the session. Using JDK, Android SDK and NDK, the game was ported to an Android Device.

The next session was on programming in Game Maker Language (GML). As part of the introduction a simple "Snake" game where a snake moves around and eats a block of food to grow was built. The blocks were generated (using instance create function) in the direction where the arrow keys were pressed.

The last session was with a new type of game called as a "Platformer". Students created a simple block which moves horizontally using the left and right arrow keys, jumps vertically upwards using the space and falls downwards by the gravity. After completing

this, the students replaced the block with an animation character to give life to the game.

Students WERE asked to edit the snake game in their own creative way. This included creating a menu, scoring system, screen etc.

SESSION ON AZURE MACHINE LEARNING STUDIO

THIS session was handled by Mr. Miran Jyoti (VI Semester, CSE) and Mrs. Sindhuja K (AP, CSE). The session started with a general walk-through on various steps of data exploration and pre-processing. Mrs. Sindhuja explained the theoretical approach to decision trees. Pre-processing also involves casting the data available into categorical, numeric or string features, using Edit Metadata module. The various casting techniques were discussed and this was incorporated into the experiment from the previous sessions - that is Flight On-Time performance which predicts whether a flight will be delayed by 15 minutes or not. Further the students were introduced to Data cleansing modules like Clean Missing Data. Once all the data pre-processing is done, it needs to be split into two parts - one to train the Machine Learning Model and the other to test the model. Thus, the parameters for splitting a data were also discussed. The creation of the ML model progressed and the tuning parameters for the learning model were discussed briefly. The learning algorithm two-class decision forest was used.

The final session of the Azure ML studio started off with the continuation of the Machine Learning model from the 3rd Session. The score module and evaluate module were discussed briefly. Contrasts were made by summarizing the data before and after pre-processing. Students were taught about analyzing the evaluation data, by visualizing the evaluation results and determining the true positive, true negative, false positive, false negative values. The deploying of the model was discussed briefly. Finally, the session concluded with A discussion of the various opportunities in the field of Data-Science and its practical applications. Resources from the internet were shared with the students to enable them to enhance their knowledge in the field of machine learning and Data-Science.

Students were assigned the creation of a predictive analysis model (on-spot) using the Titanic dataset, by implementing all the data-pre-processing features and thereon, to improve their accuracy rate.

SESSION ON POSTER DESIGN USING PHOTOSHOP

This session was handled by Mr.Rohith (IV semester, CSE). In the third session on Photoshop, students developed a motion poster with double exposure effect. How to set and use the video editing tool with the color adjustments with colorize effect, was demonstrated to students. The students learnt how to use lasso tool and their types, by doing some example edits.

In the final session, there was discussion on the previous session's assignment, and also an on the spot poster design by students, in the given time, on any topic of their interest.

Ms. Deepa Acharya (AP, CSE) handling the session on APPLICATION DEVELOPMENT USING PYTHON at the Software Development Club (SDC) training session on 17th March 2018.
Date: 17th February 2018, 24th February 2018, 3rd March 2018 and 17th March 2018
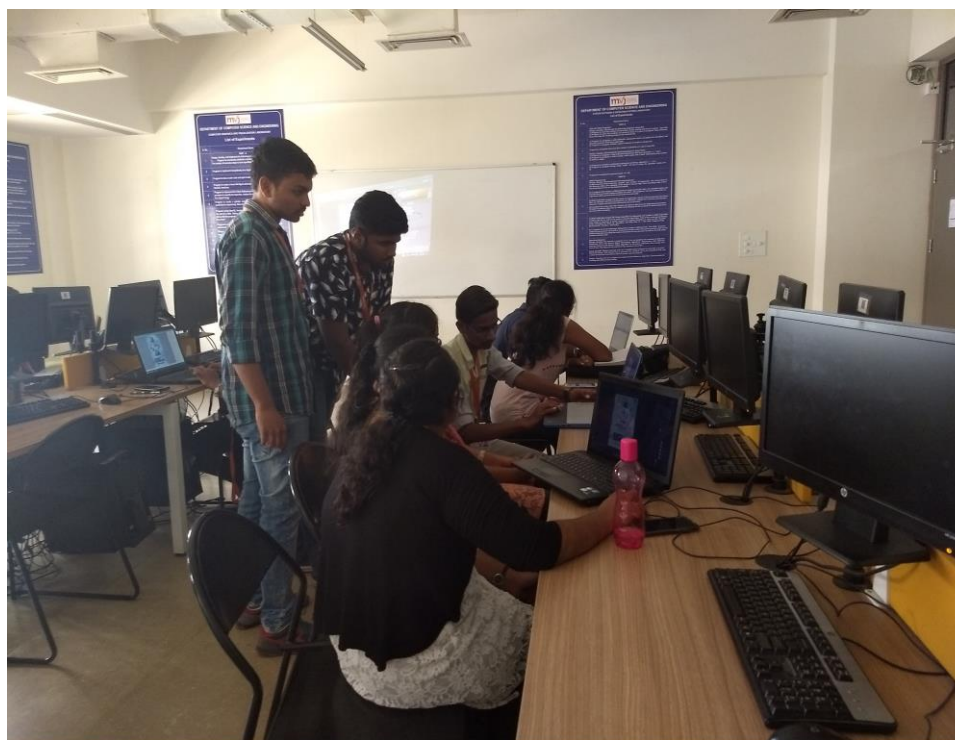(Saturday Afternoon)
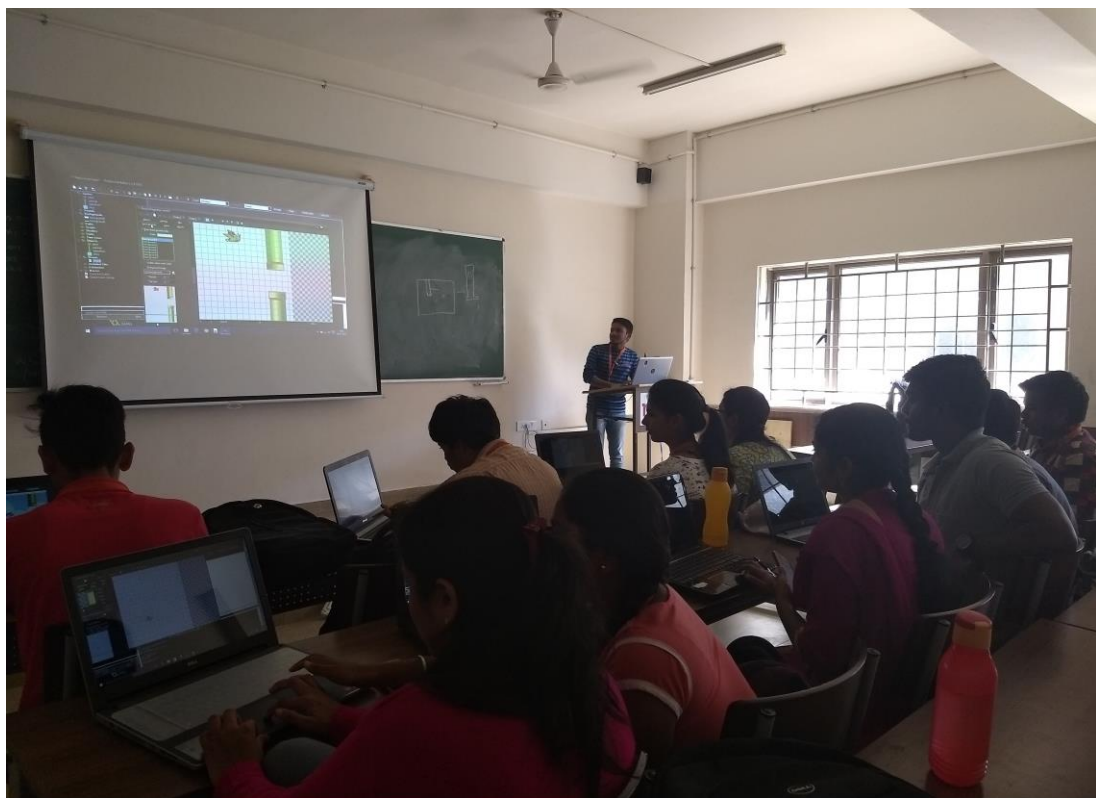
Mr.Saurav Mishra (IV SEM, CSE) handling the session on GML USING GAME MAKER STUDIO at the Software Development Club (SDC) training session on 17th March 2018.
Date: 17th February 2018, 24th February 2018, 3rd March 2018 and 17th March 2018
(Saturday Afternoon)
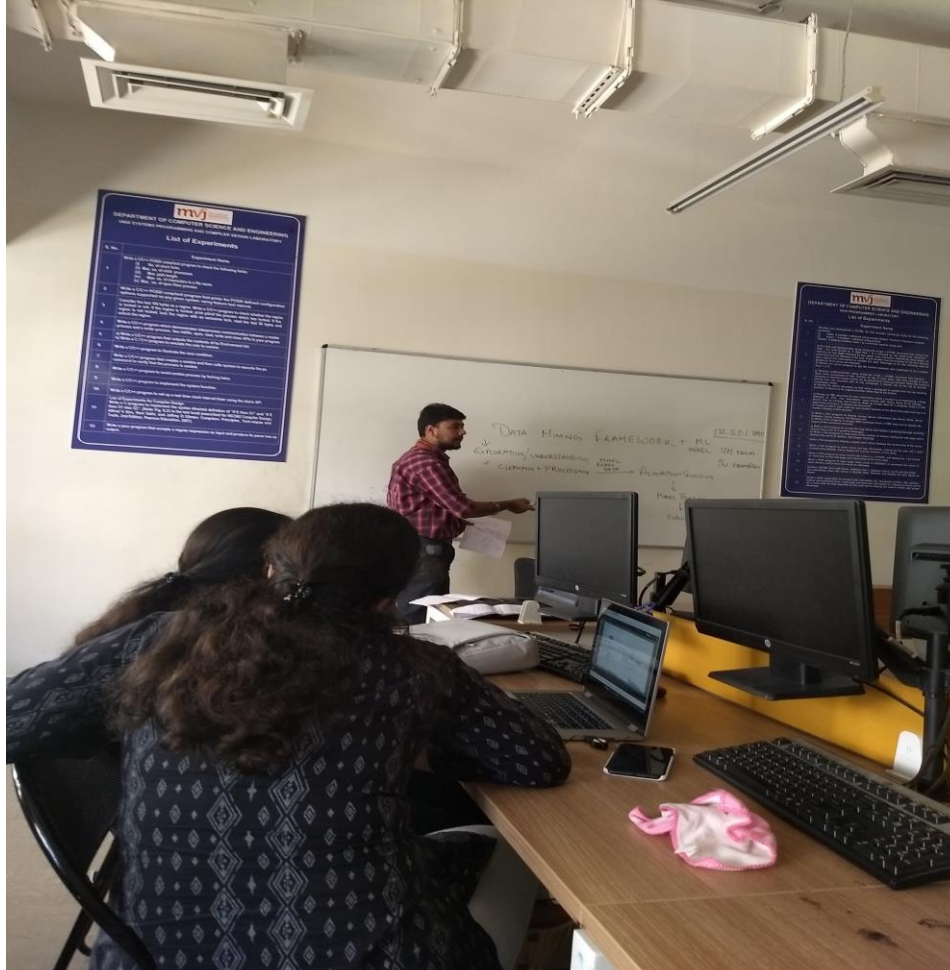
Mr. Miran Jyoti Kashyap (VI SEM, CSE) and Ms. Sindhuja K(AP,CSE) handling the session on AZURE MACHINE LEARNING STUDIO at the Software Development Club (SDC) training session on 17th March 2018.

Date: 17th February 2018, 24th February 2018, 3rd March 2018 and 17th March 2018 (Saturday Afternoon)

Mr.Rohith (IV SEM, CSE) handling the session on POSTER DESIGN USING PHOTOSHOP at the Software Development Club (SDC) training session on 17th March 2018.

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