Gokhale Education Society's

R. H. Sapat College of Engineering, Management Studies, & Research

- ISO 9001:2015 Certified   - NAAC Accredited with Grade B++

- Affiliated to Savitribai Phule Pune University
- Recognized by DTE & Govt. of Maharashtra
- Approved by AICTE, New Delhi

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Report on One Day Of Technical Expert Talk On Mobile Application Development and Freelancing Market

Organized by…

Department of MCA Engineering

THE ORGANIZING TEAM

PATRONS

Prof. P. M. Deshpande

Director (Project)

Dr. S. Sane

Principal

Prof. P. A. Chaudhari	Convener
Prof. N.A. Shiralkar	Co Convener
Prof. G. G. Raut	Member
Prof. T. U. Ahirrao	Member
Prof. P. N. Deshmukh	Member
Prof. R.C. Samant	Member

Technical Expert Talk On
Mobile Application Development and Freelancing Market

On the occasion of Technical Expert Discussion on Mobile Application Development MCA Engineering Department organized a Technical Expert Discussion on Mobile Application Development. MCA Engineering Department shared information about real life challenges of IT and latest trends in mobile application development on 27th July 2024. The seminar focuses on real-life applications and applications in the IT industry, with expert speakers imparting knowledge and guidance on new trends and technologies in mobile application development. The Seminar was attended by faculty members of MCA department (Engineering Faculty) and S.Y students of MCA Department under SPPU University.

We are pleased to invite you as a distinguished speaker for our upcoming technical expert talk on "Mobile Application Development" organized by MCA Department [Gokhale Education Society's R. H. Sapat College of Engineering, Management Studies and Research]. The event has taken place in [MCA Department/Offline Platform] on [27th July 2024] at [10:30 AM].

Your expertise in [IT sector or Mobile Application Development and Freelancing Market] and your significant contribution to the IT Sector make you an ideal speaker for this event. We believe your insights into the latest trends, technologies and real-life applications in mobile app development have been of use to our students and teachers.

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GES / RHSCOEMSR /   /   Date : 26/7/24

To,

Mr. Tanmay Bharambe

Freelancer(Android and Web Development)

Nashik

Subject: Invitation Letter for delivering a Technical Expert Talk on "Mobile Application Development and Freelancing Market"

Respected Sir,

Gokhale Education Society's R.H.Sapat College of Engineering, Management Studies and Research, Nashik, Department of MCA[Engineering] has initiated a series of technical expert talks aimed at enhancing the technical skills and industry awareness of our students and staff.
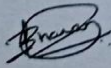
On behalf of the department, we are delighted to extend an invite to conduct the technical expert talk on "Mobile Application Development and Freelancing Market"

Event Details:

Date: 27-07-2024
Time: 10:30 am
Venue: MCA Lab

We are confident that your expertise and insights will significantly foster a deeper understanding of mobile application development and the freelancing market, thereby impacting the growth and career readiness of our attendees.

Thank you for considering our invitation. We look forward to your positive response and the opportunity to collaborate with you.

Dr. S. S. Sane
Principal
GESRHSCOEMS&R

Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik - 422005, Maharashtra, India. Contact. : 0253 - 2311842, ☎ 0253 - 2570106
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One Day of

"Technical Expert Talk on Mobile Application Development and Freelancing Market"

1. Commencement Session:

The Technical expert talk on "Mobile Application Development and Freelancing Market" at 10:30 AM on July 27th 2024 with Commencement Session of the seminar was led by the Principal Sir and MCA Department Faculty, who warmly welcomed the speaker. The session provided an overview of the day's agenda and highlighted the importance of Mobile Application Development in the current technology landscape. The faculty emphasized the speaker's expertise and the value of the insights to be shared, setting a positive tone for the discussions ahead.

The program was commencing in the presence and with blessings of:

❖ Honorable Dr. S. Sane (Principal), GES RH Sapat COEMSR Nashik.
❖ Respected Prof. P. A. Chaudhari, HOD (MCA Department), GES RH Sapat COEMSR Nashik.
❖ Respected Mr. Tanmay Bharambhe.
❖ Respected Prof. N.V. Shiralkar(Co convener), GES RH Sapat COEMSR Nashik.
❖ Respected Prof. T. U. Ahirrao , GES RH Sapat COEMSR Nashik.
❖ Respected Prof. P. N. Deshmukh, GES RH Sapat COEMSR Nashik.
❖ Respected Prof. G. G. Raut, GES RH Sapat COEMSR Nashik.
❖ Respected Prof. R.C.Samant, GES RH Sapat COEMSR Nashik.

2. Welcome Ceremony:

The Welcome Ceremony was conducted by the Dr. S. Sane (Principal) and MCA Department faculty to formally greet the attendees and the distinguished speaker. His also expressed him heartfelt gratitude towards the guests and great encouragement speech to the students.

3. Start of the Session:

At our college Ms. Akanksha Pathak introduced the entire program for the session in a very forthcoming manner. Following this, Prof. Neha Shiralkar a Faculty Member of MCA Department provided a brief overview of "Mobile Application Development and Freelancing Market. Subsequently, the session proceeded with respect to the Technical Expert Speaker, Mr. Tamnay Bharambhe who started the discussion on the upcoming topic.
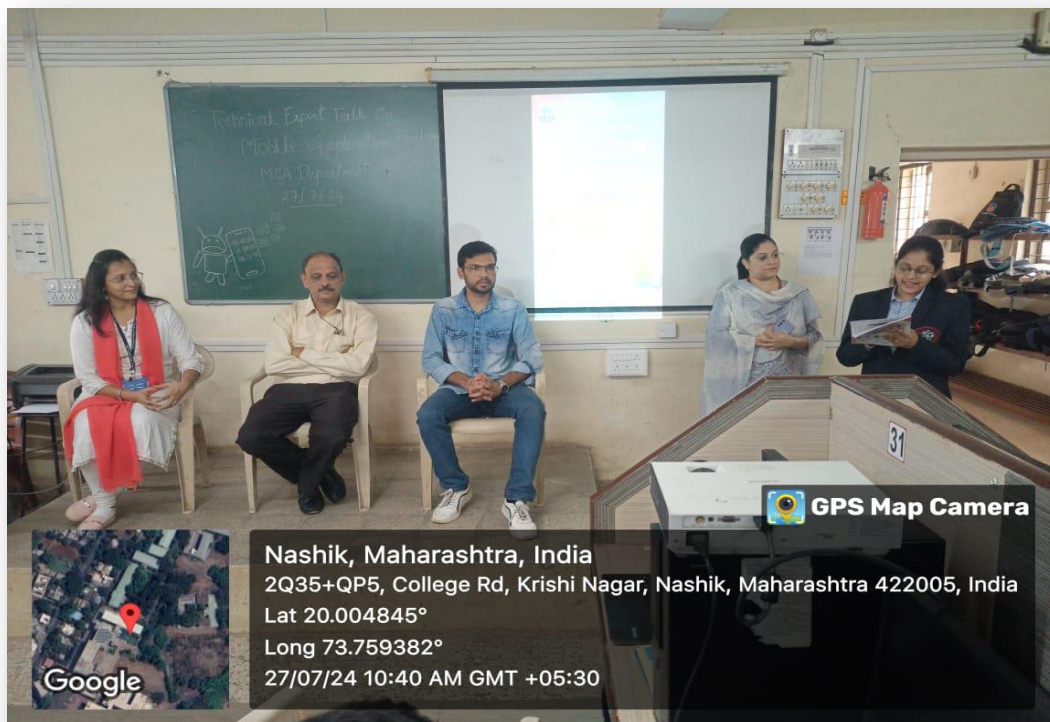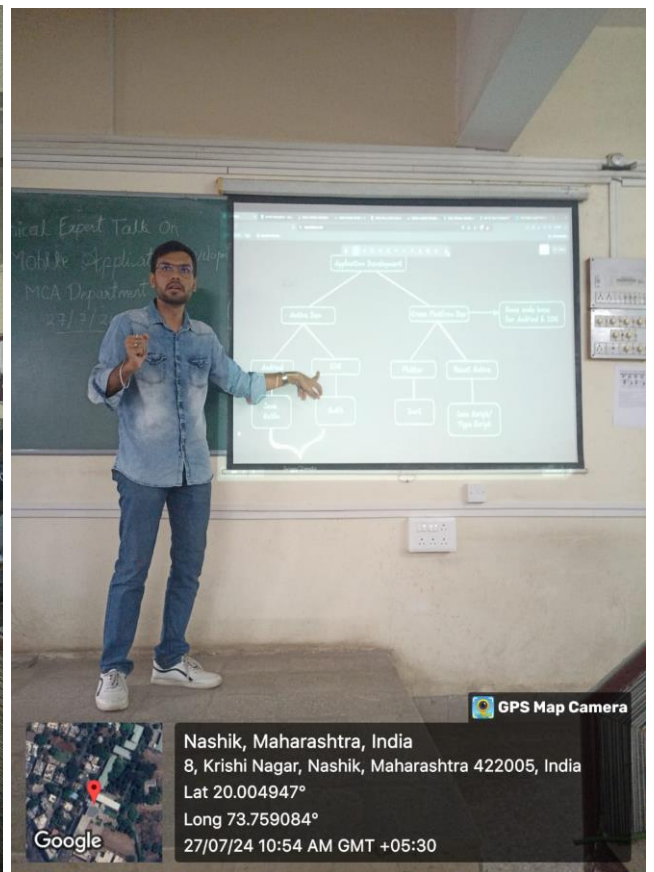
Technical expert speaker Mr. Tanmay Bharambe provided an in-depth presentation on his topic, delivering comprehensive information. He discussed how mobile application development and the freelancing market are currently relevant to the IT sector. He encouraged students by offering special insights into Mobile Application Development. Additionally, he explained the online tools and mechanisms needed for mobile application development. The students listened attentively and absorbed the information presented.

Mr. Tanmay Bharambe provided an analysis of both Android and IOS in the context of native development.

➢ **Android:**

- o **Development Environment:**
    - **Android Studio**: The official IDE with tools for coding, debugging, testing, and deploying apps.
    - **Languages**: Java and Kotlin (preferred for its modern syntax and features).
- o **Architecture and Components:**
    - **Activities**: Screens with user interfaces.
    - **Services**: Perform background tasks.
    - **Broadcast Receivers**: Respond to system-wide broadcasts.
    - **Content Providers**: Manage and share app data.
- o **User Interface (UI) Design:**
    - **XML Layouts**: Define UI elements and structure.
    - **Material Design**: Clean, intuitive design guidelines by Google.
- o **APIs and Libraries:**
    - **Android SDK**: Essential APIs and tools.
    - **Third-Party Libraries**: Tools like Retrofit (for network calls), Glide/Picasso (for image loading), and Room (for database management).
- o **Testing:**
    - **Unit Testing**: Testing individual components in isolation.
    - **Instrumented Testing**: Runs on devices/emulators, testing interactions.
    - **UI Testing**: Automated UI tests with tools like Espresso.

- o **Publishing and Distribution:**
  - **Google Play Store**: The main distribution platform, requiring account creation and adherence to guidelines.
  - **APK and AAB Files**: Formats for app distribution, with AAB optimizing app size.
- o **Security and Permissions:**
  - **Permissions**: Apps request access to device features/data.
  - **Security Best Practices**: Secure coding, data encryption, and protecting sensitive information.
- o **Continuous Integration and Deployment (CI/CD):**
  - **CI/CD Tools**: Automate build, test, and deployment processes using tools like Jenkins and GitLab CI.
- o **Monetization:**
  - **In-App Purchases**: Selling digital goods/services.
  - **Advertisements**: Using ad services like Google AdMob.
  - **Subscription Models**: Offering premium content/features on a subscription basis.
- o **Performance Optimization:**
  - Ensuring smooth performance by optimizing memory usage, reducing app size, and managing network calls efficiently.

- ➢ **IOS:**

  - o **Development Environment:**
    - **Xcode**: The official Integrated Development Environment (IDE) for iOS development, provided by Apple. It includes tools for coding, debugging, and testing.
    - **Programming Languages**: Swift (preferred for its modern syntax and safety features) and Objective-C.
  - o **Architecture and Components:**
    - **View Controllers**: Manage a screen's content and UI interactions.
    - **Storyboards and XIBs**: Visual layout tools in Xcode for designing app interfaces.
    - **MVC and MVVM**: Common architectural patterns used to organize code.
  - o **User Interface (UI) Design:**
    - **UIKit**: Framework for building and managing the app's UI components.
    - **SwiftUI**: A newer framework for building UIs declaratively with Swift.
    - **Human Interface Guidelines (HIG)**: Apple's design standards for creating intuitive and consistent user experiences.
  - o **Publishing and Distribution:**
    - **App Store**: The primary platform for distributing iOS apps. Requires an Apple Developer account and adherence to App Store Review Guidelines.
    - **App Store Connect**: Platform for managing app submissions, analytics, and user feedback.
  - o **Monetization:**
    - **In-App Purchases (IAP)**: Selling digital content within the app.
    - **Subscriptions**: Recurring revenue model for ongoing services or content.
    - **Ads**: Integrating advertisements using Apple's Ad Network or third-party services.
  - o **Performance Optimization:**
    - **Instruments**: Xcode tools for profiling and optimizing app performance.
    - **Efficient Resource Management**: Optimizing memory usage and responsiveness.

Mr.Tanmay Bharambe provided detailed information on these aspects, helping students understand the differences and best practices in Android and iOS mobile application development. He provided brief information about the setup and configuration parameters required for them.

Afterward, he informed the students about the freelancing market while developing this project application. He explained that there is a vast scope in freelancing, where students can create their own projects and deploy them on online platforms. This allows them to gain real-time working experience similar to a job and earn money. He briefly discussed how students can create their own online portfolios to attract clients and secure projects.

During the session, an online test was conducted for the students to assess their understanding and performance. The purpose was to gauge how much information the students had acquired on the topic.

During the session, some students asked questions, and the speaker explained the answers clearly and thoroughly.

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Long 73.758998°
27/07/24 12:25 PM GMT +05:30

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8, Krishi Nagar, Nashik, Maharashtra 422005, India
Lat 20.004973°
Long 73.758994°
27/07/24 10:46 AM GMT +05:30

Nashik, Maharashtra, India
8, Krishi Nagar, Nashik, Maharashtra 422005, India
Lat 20.004973°
Long 73.758994°
27/07/24 10:46 AM GMT +05:30

4. Thanking Session :

At the end of the session, Ms. Asmita Thakare sincerely thanked all the members who contributed to the success of the program. She expressed heartfelt gratitude to all the volunteers and organizers, acknowledging their dedication. Additionally, the session concluded successfully, and a thank you letter was presented to the Speaker, Mr. Tanmay Bharambhe to express our gratitude.

Nashik, Maharashtra, India
2Q25+RQ5 Krushinagar Joggers Park, Krushinagar Jogging Track, Parijat Nagar, Nashik, Maharashtra 422005, India
Lat 20.002063°
Long 73.759386°
27/07/24 12:39 PM GMT +05:30

__Thanks Giving Letter__

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GES / RHSCOEMSR /   /   Date : 27/7/24

To,
Mr. Tanmay Bharambe
Freelancer(Android and Web Development)
Nashik

Subject: Thanksgiving Letter for delivering a Technical Expert Talk on "Mobile Application Development and Freelancing Market"

Respected Sir,

On behalf of Gokhale Education Society's R.H.Sapat College of Engineering, Management Studies and Research, Nashik, Department of MCA[Engineering], we would like to extend our heartfelt gratitude for your invaluable contribution as a resource person for the technical expert talk on the topic "Mobile Application Development and Freelancing Market."

The feedback from our students has been overwhelmingly positive, highlighting the clarity of your explanation, the relevance of the content to their career aspirations, and the engaging and interactive nature of the expert talk. Your willingness to share your knowledge and experiences has undoubtedly inspired and motivated our students, providing them with valuable insights and practical knowledge that will benefit their future endeavors.

Once again, thank you for your time, expertise, and dedication in conducting an exceptional tech talk for our students and staff. We hope to collaborate with you again in the future and continue our efforts to educate and inspire the next generation of industry leaders.

Recived.
27/4/24

Dr. S. S. Sane
Principal
GESRHSCOEMS&R

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5. Outcomes:

The event successfully inspired attendees to adopt positive environmental behaviors. It offered students valuable opportunities to actively engage with technical knowledge in mobile application development and leadership. By organizing and participating in the event, students enhanced their skills in event planning, public speaking, and teamwork, while also strengthening their commitment to technical stewardship.

Prepared By   Approved By

Prof. N.A. Shiralkar   Prof. P.A. Choudhari

Co Convener   HOD(MCA)