

NEW HORIZON COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

14/02/2020

GUEST LECTURE

This is to inform that for all VI Semester students, a guest lecture is arranged on **15/02/2020** (Saturday) at Chanakya Seminar Hall between 10:00 A.M to 12:00 P.M.

Topic to be delivered: ARM programming on Android Devices.

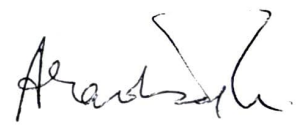
Name of the Speaker: Mr. Praveen Kumar

Designation: Founder & CEO

Company: Ekagga Technology & Services Pvt. Ltd.

Respective Course teachers are hereby informed to be present at Chanakya Seminar Hall during the lecture.

All the faculty members are invited to attend the same without affecting the regular classes.

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for HOD-ECE

14.02.20

Praveen Kumar

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Pranavas BSR GITAAAR,

Phone +91-9900580472

Panathur, Bangalore - 87

Accomplished technical leader with 14 years of experience in the IoT/Mobile/Telecom/eCommerce industry - with over 7 years of leadership experience in R&D and software development management.

Proven track record with end to end life cycle experience in leading and execution of parallel, complex projects, delivering high quality deliverables on time, especially leading & building teams which involved learning new technologies and co-operation with other teams.

I have lead the development of Micromax Custom ROM from scratch with setting up complete new team. Also lead the design and development of Nokia X Software platform SDK, the first Android compatible platform from Nokia.

Currently formed a new team at Ekagga Technology upto 25+ team members. Working on IoT / Mobile OS / Application Development. Trying to improve the life of individual by IoT implementation.

Delivered Automotive IoT product from scratch using NVIDIA tx1 board for analysing the driver behaviour on Edge.

Experience: 14 Years

- ❖ 8 years of C, C++ development experience in Linux, Symbian, Android.
- ❖ 4+ years of experience in working IoT Domain for Automotive, Smart Home, Smart Monitoring System.
- ❖ 2+ years of experience in Building Custom ROM on API 20 & SDK in Android API 16, API 18.
- ❖ Strong coding and development using object oriented programming concepts.
- ❖ Working knowledge in Agile development process.
- ❖ Taken multiple session and workshop to educate team on open source technologies and Android Development.
- ❖ Taken classes for Assembly Language during Ph.D. course work.
- ❖ Served as a role of scrum master and technical lead for a team of 8/12 people.
- ❖ Worked as Product Owner for a team of 18 members.
- ❖ Worked as a Software Development Manager for engineering team of 8-15members.
- ❖ Responsible for hiring new talents for team and Amazon - Chennai Center/ Micromax /Ekagga Engineering – Bangalore.
- ❖ Lead line manager and technical deliverable for Amazon e-Periodical Content Team.
- ❖ Managing Dev, Product, Program Manager along with Architect and Business Dev Manager, with team of 15+ tech people, 10+ non tech people(Bangalore, Delhi & Ranchi)

Work Experience:

Device Group & tenancy - Should group the devices

Monitoring Devices - Alert when certain conditions are met

Troubleshooting Devices - in case of issue

Device Communication/Command - Device communication and command

Device Update/Upgrade - Updating the devices firmware, application

Rule Engine - rules which be created on the fly based on the requirement.

Application Enablement Platform (AEP): This provides easy procedure to onboarding new use case.

Communication

Data storage

Management

Application building and enablement

User interface/access security

Analytics

Data Analytics: Analytics of all ingested data on the IoT platform.

Airtel Smart Home:

Architect and lead the implementation on the Airtel Smart Home using STB and Custom gateway on PTC Thingwrox.

On Prem Deployment: We have deployed the PTC in Airtel DC with required changes in the architecture.

Gateway: The gateway which can connect to all the devices and sensor to communicate the data / control to PTC platform.

Services: Services / Subscription to handle incoming data to generate alert or any other system communication.

Analytics: Analytics on received data.

Dashboard / Mashup: UI for accessing the all users data.

Mobile: Application

Description: **AvekSate IoT : Smart Monitoring System: (ongoing)**

1. **Development Manager (Micromax Informatics Ltd. Jan 2015 to till date)** In current role I was responsible for:

Hiring & Setting up Development Team

- Setting up working process for team
- **Designing and Developing Custom ROM for Micromax Devices based on AOSP**
- Environment: C++, JAVA, XML, Android, Make
- Team Size: 20
- AOSP Platform: 5.1.1
- Role: Dev Manager, Mentor for new comer, Design, Development, Debugging and Testing, Coordinator for three involved teams Micromax Engineering team, Services team and External team.
- **Description:** The Micromax Custom ROM was based out on the Android Open Source Project (AOSP) v5.1.1. We have implemented various changes in Framework & Apps layer. We have also integrated Micromax Services (such as SSO, Backup & Restore, YU trending apps, MiGallery. It also includes UI differentiator, Notification, App Drawer, Quick Notification etc., developed some application like FileManager, Bug Reporting etc..
- Code review enforcement using Git/Gerrit.
- CI setup using Jenkins.
- Test Automation for sanity and nightly build verification

2. **Lead Engineer (Nokia India Pvt. Ltd. April 2013 to till date)** |

- Designing and creating Nokia X Android SDK for Nokia X software platform
- Responsible for various prototypes for Nokia X SDK
- Responsible for owning overall architecture for Nokia X SDK.

A. **Project: Nokia X Android SDK (July 2013 – July 2014)**

- Environment: C++, JAVA, XML, Android,
- Team Size: 8
- AOSP Platform: API 16/ API 18
- Role: Team Lead, Mentor for new comer, Design, Development, Debugging and Testing, Coordinator for three involved teams Nokia Platform team, Services team (HERE, NNA, NIAP) and SDK team.

Description: The Nokia X/X2 software platform is based on the Android Open Source Project (AOSP) v4.1.2./v4.3. It has Android at its core and provides Nokia Services (such as HERE Maps, Nokia In App Payment, Nokia push Notification) in place of Google Services. It also includes Nokia UI differentiator, Fastlane, Nokia Theme and Nokia Customized options. In addition, also include various Nokia applications like Store, Nokia HERE app, Nokia Xpress and MixRadio and Microsoft services (such as Skype and Outlook).

Nokia X SDK includes an add-on emulator based on the Android emulator and all tools required to develop Android apps for Nokia X platform. It also bundles the Nokia Services API, device definition and USB driver for Nokia X devices. In addition it includes,

4. Product Owner for Rest of World Operator and Market Software (Nokia India Pvt. Ltd.) Oct 2006 – Sept 2011

Played the role of Product Owner from Jan 2011 to Sept 2011.- As the Product Owner, I was looking after the requirement of Operator for Nokia Symbian devices. My responsibility is to create backlog item for the operator project and to prioritize the same and also helping the scrum team to achieve the objectives.

5. Senior Engineer, SW (Software) and Team Leader (Nokia India Pvt Ltd., Bangalore)

A. Project: Vodafone Single Sign On for Nokia Devices C7, N8 PR2.0. (Jan 2010 – Dec 2010)

- Environment: C++, XML, Symbian, S60 9.2, TRK
- Team Size: 12
- Role: Team Lead, Mentor for new comer, Design, Development, Debugging and Testing, Coordinator for three involved teams Vodafone Backend, SSO – Single Sign On and Differentiating Software (our team)

Description: This project enables the Nokia Devices for Vodafone and OVI combined single sign on(SSO). Along with SSO it provides also three FTU plugin updates. It includes,

- > Vodafone & OVI combined promo screen, Nokia Terms and Condition plugin and Vodafone Welcome Plugin.
- > Displaying of Vodafone and OVI combined promotion screen as part of Device First Time Use (FTU).
- > Allowing the user to create VF360 & OVI accounts during Device FTU. If the user skips the combined account creation in FTU then it shows the OVI or VF application again when user selects any Vodafone or OVI services.

B. Project: Vodafone Services App & Widgets for Nokia Devices C7 (Jan 2009 – Dec 2009)

- Environment: C++, XML, Symbian, S60 9.2, TRK
- Team Size: 8
- Role: Team Lead, Co-ordinated the delivery with Wipro, Development Debugging and testing

Description: We have developed various Widget and Services app for the Vodafone

Vodafone Services App: It is a Vodafone application similar to Menu view to list all the Vodafone specific application for Nokia devices. The list and the order priority list can be updated during the variant time by the different cenrep(central repository) setting or after the sales using Independent Application Delivery (IAD).

Vodafone Services Widget: It is a widget to list the all the applications in Widget which can be launched from the Homescreen. The list is dynamic which means it is updated based on the user or IAD install/uninstall and supports the Kinetic scroll.

C. Project: Vodafone Services App & Widgets like Internet, MyStuff, Widget Template for Nokia Devices N5800, N97 (Jan 2008 – Dec 2008)

MyInternet plugin: Its home screen plugin which fetches all the Vodafone specific applications to the ActiveIdle. The list is dynamic which means if users install/uninstall an application, it will be updated dynamically.

Some of the Vodafone JAVA applications publish some contents to the active idle. We have implemented sever and DB to store the published messages.

F. Project: Vodafone Complementary Project (VCP) (Oct 2006 – Dec 2006)

- Environment: C++, XML, Data structure, Symbian, S60 3.2, S60 3.2.3, Symbian, TRK
- Role: Development Debugging and testing
- Team Size: 6

Description: As part of VCP project, we have developed the various Homescreen plugins like Music, Missedcall, Messaging. We have also developed one Gallery Games and Apps plugin.

Music, Missedcall & Messaging plugin: These are Homescreen ECOM plugin which publishes the contents to the Homescreen. The UI format and placeholders are defined in the XML for the Homescreen and dynamic data is published to the screen through the ECOM dll.

GamesAndApps: It is a virtual folder associated under the MyFiles/Gallery where user can see all the installed applications of the device. It is a dynamic list of an application, if an application is installed/uninstalled, the same should be reflected to the GamesAndApps list.

6. System Engineer (SISL - Siemens Information System Limited, Bangalore) Nov 2005 to Oct 2006

Project: Using M4 C++ runtime Class generation

Description: The project is for the Healthcare domain (the syngo®- the Medical platform of SIEMENS). In Medical world, DICOM (Digital Imaging and Communications in Medicine) is the standard which should be followed by all organizations. The DICOM contains key-value pair (e.g., patient name and actual name). There are various classes with similar attributes and when a new tag is added, all the classes need to be modified. The task was done using the macro processor language M4. I was also involved in various bug fixes and help desk support for syngo® Medical devices.

7. Internship - (GE Healthcare, Bangalore) Feb 2005 to Nov 2005

Project: Migration of MRI Software from Objective C to C++

Description: Worked on the migration projects and involved in the existing architecture understanding of MRI software, migration and implementation of new features in C++. Also, involved in target debugging.

Publication:

- Praveen Kumar and Nityananda Sarma Survey: Mobile Agent and its use for Application Migration, National Conference on Trends in Machine Intelligence, Tezpur, 2011.

Seminar and Workshop:


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VI Sem "A" Sec Guest Lecture on "ARM Programming on Android Devices"			
SL.No	USN	NAME	SIGNATURE
1	1NH14EC015	AMUDHA G (Rejoinee)	
2	1NH16EC013	BOMMI REDDY YUGANDHAR REDDY (Rejoinee)	
3	1NH16EC027	ELDHO JOSE (Rejoinee)	P X
4	1NH17EC002	ADESH V	P X
5	1NH17EC003	ADITYA OMPRAKASH CHOUDHARY	
6	1NH17EC004	AKSHITHA R	
7	1NH17EC005	ANAND T	P P ✓
8	1NH17EC006	ANAND T	P ✓
9	1NH17EC007	ANKIT KUMAR	Not ✓
10	1NH17EC008	ARUN Y S	Not ✓
11	1NH17EC009	B S ABHISHEK	
12	1NH17EC010	B YAMINI	
13	1NH17EC011	BHARATH M	P X ✓
14	1NH17EC012	BHARATH Y R	Not ✓
15	1NH17EC013	BHASKAR K	P ✓
16	1NH17EC014	BOGGARAPU MOURYA YASWANTH	
17	1NH17EC015	BOREDDY NAGA MAHESWAR REDDY	P ✓
18	1NH17EC016	C O PRUTHVI	P ✓
19	1NH17EC018	CETHAN B R	
20	1NH17EC019	DEEKSHITH N REDDY	P ✓
21	1NH17EC021	DEVASHRUTHA S	P ✓
22	1NH17EC022	DHANYASHREE V REDDY	P ✓
23	1NH17EC023	DIVYA SAGAR REDDY	P ✓
24	1NH17EC026	G R VARSHA	
25	1NH17EC027	GAGAN B K	P ✓
26	1NH17EC028	GAUTAM SINHA	
27	1NH17EC030	H K BHASKAR	P ✓
28	1NH17EC031	HARSHITHA G	P ✓
29	1NH17EC032	IVATURI S S HARSHAVARDHAN	
30	1NH17EC033	J RUTH SHARON	Not ✓
31	1NH17EC034	JERIN JOHNSON	
32	1NH17EC035	JITENDER	
33	1NH17EC036	K S SIRISH	
34	1NH17EC037	K S SNEHA LATHA	P ✓
35	1NH17EC038	KARAN SRINIVAS	
36	1NH17EC039	KAVYASHREE S	P ✓
37	1NH17EC040	KEVINE PRASANNA KUMAR	
38	1NH17EC041	KUSHALA C	
39	1NH17EC042	M BHARAT	P ✓
40	1NH17EC043	M HEMANTH YADAV	
41	1NH17EC044	MADALA HIMAJA	P ✓
42	1NH17EC045	MADHUMITHA R	P ✓
43	1NH17EC046	MADHUPARNA BANERJEE	P ✓

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44	1NH17EC047	MAMATHA B S		
45	1NH17EC048	MANIKANTA	P	
46	1NH17EC049	MANISH B	P X	
47	1NH17EC051	MILAN SHANKAR RAO M		
48	1NH17EC052	MOHAMMED GHASSAN	D	✓
49	1NH17EC053	MONIKA K REDDY	P	✓
50	1NH17EC054	NANDURI SRILASYA		✓
51	1NH17EC055	NAVAJITH R REDDY	P	✓
52	1NH17EC056	NAVEEN K M	P	✓
53	1NH17EC057	NETTEM PARNITHA		
54	1NH17EC058	NIKITH BABU	NIKITH P	✓
55	1NH17EC127	SUMAN PAL	DOT	✓
56	1NH17EC128	SUHAIL PASHA	P X	✓
57	1NH17EC129	BATHULA SRI SAI KRISHNA	P	✓
58	1NH17EC130	ANISHA DEVI		
59	1NH17EC131	ASHWIN S P	DOT	✓
60	1NH17EC132	MURAKONDA AVINASH		
61	1NH17EC133	THURPUNATI SURYA PRAKASH REDDY	P X	
62	1NH17EC135	SAI KARTHIK P R		
63	1NH17EC137	GANGADHARA VARSHITHA		
64	1NH18EC405	Charan S	P	✓
65	1NH18EC407	Nagesh N Reddy	P	✓
66	1NH18EC408	Pragati Shrinivas Naik		✓
67	1NH18EC409	Prashant Joshi	P	✓
68	1NH18EC410	Ravi S	P	✓
69	1NH18EC414	Santosh B Gonal	P	✓
70	1NH18EC417	Spoorthi S T		
71	1NH18EC418	Swaroop M R	P	✓
72	1NH18EC421	Vinod K		
73	1NH18EC422	Yashwanth N K	P	✓
74	1NH18EC424	Naveen N	P	✓
75	1NH18EC425	Nikhil Gopal Krishna Sirsakar	P	✓
76	1NH18EC428	Sandeep Reddy V	P	✓
77	1NH18EC432	Vishal Nayak	P	✓

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VI Sem "A" Sec Guest Lecture on "ARM Programming on Android Devices"

SL.No	USN	NAME	SIGNATURE
1	1NH16EC074	PAVAN KUMAR S (Rejoiner)	P X
2	1NH16EC111	VEDA MILIND (Rejoiner)	
3	1NH17EC060	NISHMITHA C SHETTY	P X
4	1NH17EC062	NITHIN R KALLIGUDI	
5	1NH17EC063	PALAGIRI JYOTHI KRISHNA	P ✓
6	1NH17EC064	PANUGANTI VIKAS	
7	1NH17EC065	PARTHASARATHI N	P ✓
8	1NH17EC066	PASSAVULA PHANINDRA	
9	1NH17EC068	PRANAY CHATURVEDY	P ✓
10	1NH17EC069	PRAVEEN KUMAR S	P ✓
11	1NH17EC070	PREETHU C	
12	1NH17EC071	PRINCE CHAURASIYA	
13	1NH17EC072	PUNEETH REDDY V	
14	1NH17EC073	R BARATH	TOTK ✓
15	1NH17EC074	R KISHAN KUMAR SAI	P ✓
16	1NH17EC075	R RAGHAVA	P ✓
17	1NH17EC077	RAHUL V	
18	1NH17EC079	RENUKA D N	
19	1NH17EC080	RIYA RAKESH	
20	1NH17EC081	ROHITH P GOWDA	P X
21	1NH17EC082	RUPSA DATTA	
22	1NH17EC083	S RISHITA	P ✓
23	1NH17EC084	SAIKAT SAMANTA	
24	1NH17EC085	SAIMANTI SAHA	
25	1NH17EC086	SAMYUKTHA V	P ✓
26	1NH17EC087	SATEESH R HEGDE	P ✓
27	1NH17EC088	SHAKTHI A	P ✓
28	1NH17EC089	SHALINI P N	P X
29	1NH17EC091	SHIVA S	P ✓
30	1NH17EC092	SHOAIB AHMED	
31	1NH17EC093	SHRESTHA PATNAIK	
32	1NH17EC094	SHREYANKA S	P X
33	1NH17EC095	SHWETA S	
34	1NH17EC096	SOUVIK DAS	TOTK ✓
35	1NH17EC097	SOWMIYA A	
36	1NH17EC099	STANISLAUS LASRADO	P ✓
37	1NH17EC100	SUHAIB AFNAN	
38	1NH17EC101	SUHAS H G	
39	1NH17EC102	SUHAS S P	
40	1NH17EC103	SUMITHRA V ARADHYA	P X
41	1NH17EC104	SUNIL PATIL	
42	1NH17EC105	SUSHMA S	
43	1NH17EC106	SYALE RAJ KUMAR	
44	1NH17EC107	TALLURI VENKATA VARUN SAI	P ✓

Section - B
21

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45	1NH17EC108	TEJAS K		
46	1NH17EC109	THEJAS U	P	✓
47	1NH17EC111	THOMMANDRU VENKATA SAI MANI TEJA		
48	1NH17EC112	UPPU GIRIDHAR		
49	1NH17EC113	V DHARANIDHAR	P	✓
50	1NH17EC114	V R SAI LAALITHYA		
51	1NH17EC115	V S MOUNIKA		
52	1NH17EC117	VIDHYA B	P	✓
53	1NH17EC118	VIDHYASHREE B M		
54	1NH17EC119	VINDHYA NARAYAN		
55	1NH17EC120	VISHWAJYOTHI B RESHMI		
56	1NH17EC122	Y C ABHAY KUMAR		
57	1NH17EC123	YADHEESH	P	✓
58	1NH17EC124	YASH MALVIYA		
59	1NH17EC125	YASSER FAIZ AHMED N	P	✓
60	1NH17EC126	VAISHALI M S		
61	1NH17EC134	SALLA GUNA PRADEEP		
62	1NH17EC136	GADE NAVEEN REDDY		
63	1NH17EC138	SYKAM KARTHIK REDDY		
64	1NH17EC139	NEELA LOKESH		
65	1NH18EC400	Aakash Singh N		
66	1NH18EC401	Abishek N S		
67	1NH18EC403	Akhilesh Venkappa Kshatri	P	✓
68	1NH18EC404	Bhanu Priya N		
69	1NH18EC412	Sagar V		
70	1NH18EC413	Sanjay P		
71	1NH18EC416	Shreekanta K S		
72	1NH18EC420	Vignesh R		
73	1NH18EC423	Bindushri K		
74	1NH18EC426	Niveditha Y N		
75	1NH18EC427	Pavan Y		
76	1NH18EC429	Sheshadhara Hegde	P	✓
77	1NH18EC431	Srilakshmi M		

Mohit

P ✓

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VI Sem "A" Sec Guest Lecture on "ARM Programming on Android Devices"

SL.No	USN	NAME	SIGNATURE
1	1NH16EC136	ALVIRA SUZANA (REJOINEE)	P
2	1NH16EC701	A NAVYA SHREE	
3	1NH17EC420	Prathamesh Kadam (Rejomee)	
4	1NH17EC700	AATHIRA VIJAYAN	P
5	1NH17EC701	AJAY S	
6	1NH17EC702	AKSHAJA SHIMALNA O K	P
7	1NH17EC703	ARAVIND P M	
8	1NH17EC704	ASHIKA P	P
9	1NH17EC705	BHARGAVI	P
10	1NH17EC706	CHANDU V J	
11	1NH17EC707	DHANUSH S	
12	1NH17EC708	DHINAKARAN S	
13	1NH17EC709	DISHANTH M P	
14	1NH17EC710	G DEEPIKA	TOT
15	1NH17EC711	GAGANASHREE P S	P
16	1NH17EC712	GRACE GLADYS A	P
17	1NH17EC713	HARSHITH NAIDU J	
18	1NH17EC714	J BHAVANA	
19	1NH17EC715	JAYADEEP G P	
20	1NH17EC716	JILLELLA RUPASAGAR REDDY	P
21	1NH17EC717	K AISWARYA	P
22	1NH17EC718	KONDURU SIVARAMA RAJU	P
23	1NH17EC720	LAVANYA S N	P
24	1NH17EC721	MANISHA M N	P
25	1NH17EC722	MANOHAR G	
26	1NH17EC723	MANOJ M R	
27	1NH17EC724	MUNAGALA BHARATH KUMAR REDDY	
28	1NH17EC725	NAINI NARAMA	P
29	1NH17EC726	NAVEEN KUMAR M S	P
30	1NH17EC727	NEHA KRISHNA	P
31	1NH17EC728	NIDUJUUVI CHAKRADHAR	
32	1NH17EC729	NIKHIL DWIVEDI	P
33	1NH17EC730	P K KANAKA SHARANYA	P
34	1NH17EC731	PALVADHI VENKATA SAI PAVAN KALYAN	
35	1NH17EC732	PAVAN U	
36	1NH17EC733	PRACHI VERMA	P
37	1NH17EC734	PRAJWAL P	
38	1NH17EC736	RAHUL BALAJI P S	TOT
39	1NH17EC737	RISHIKA POTEPELLI	
40	1NH17EC738	RITWIK SHOME	
41	1NH17EC739	S DENILA GRACELIN	P
42	1NH17EC740	S RAHUL YADAV	
43	1NH17EC742	SAHIB ARORA	
44	1NH17EC743	SANDHYA K	P

Sectronic

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45	1NH17EC744	SHARATH T P	
46	1NH17EC745	SHARON MOSES	POT
47	1NH17EC746	SHASHANK REDDY J	P
48	1NH17EC747	SHASHANK S SALOTAGI	P
49	1NH17EC748	SHIVANG DUBEY	
50	1NH17EC749	SIRISHA B S	P
51	1NH17EC750	SOMA YASWANTH REDDY	P
52	1NH17EC751	SREEKAR REDDY KALLAM	P
53	1NH17EC752	SUHAS S	
54	1NH17EC754	THUMMALA SURYA DEVI VARAPRASAD	P
55	1NH17EC755	USTHEPALLI ABHIRAM	
56	1NH17EC756	VARUN P	P
57	1NH17EC758	Y SUCHARITHA	P
58	1NH17EC759	YERRABALLI GURU SAI KUMAR	
59	1NH18EC402	Aiyappa K K	P
60	1NH18EC406	Harshitha M	
61	1NH18EC411	Roja Parameshwar Ullikashi	
62	1NH18EC419	Tejaswini T R	P

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