Name: ALI ABDUL BASIT ALI MEMON

ROLL NO: 2K18/CSME/4

SUBJECT: SOFTWARE ENGINEERING

TEACHER: GULSHER LAGARI

GITHUB LINK: https://github.com/basit376/2K18-CSME-4-ALI-ABDUL-BASIT.git

Title: ***Refactoring Android-specific Energy Smells: A Plugin for Android Studio***

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Introduction*:* ***He work on the Energy smells are of the presence of poor implementation choices that badly affects energy consumption in (Android Studio) mobile applications. firstly he compared to famous Detection tools aDoctor and Paprika that are already available he work on aDoctore and extend aDoctor architecture as automation refactoring and publish on android studio.***

Research : ***He Work on 5 Major energy smells issues 1: Durable Wakelock 2: INFFICIENT DATA STRUCTURE 3: LEACKING THREAD 4: MEMBER IGNORING METHOD 5: INTERNAL SETTER***

Methodology: ***Adoctor tool first analyze the mobile applications then it proposes a refactoring solution for each detections and then the user agree it applies Refactoring automatically:***

Summary: *This tool first extract abstract syntax trees from the source code then relying Eclipse JdT Code library it analyzes andry factors the code directory on extracted syntax trees finally the changes are propagaded to source code Adoctor tool can find and fix different energy smells durable 1: Durable Wekelock 2: INFFICIENT DATA STRUCTURE 3: LEACKING THREAD 4: MEMBER IGNORING METHOD 5: INTERNAL SETTER 6:EARLY RESOURCE BINDING*

MOTIVATION: *WE CAN CREATE A AUTOMATIONS TOOLS AND PUBLISH FOR PEOPLE THEY USE IT AND SAVE HIS/HER TIME IN FINDING ERRORS IN THEIR CODES:*

Results: *WE GET IT VERY USE FOR DEVELOPER TO USE Adoctor tool to refactoring automatically these 6 major energy smell components in java mobile applications codes:*