CPS 1010- Collaborative Practical Project

Assignment 3-Issue Tracking and Continuous Integration

Ylenia Zammit, Darren Aquilina, Daniel Camilleri

28th November 2016

1   Team Information

Our team consists of three members, Daniel Camilleri, Ylenia Zammit and Darren Aquilina.

Darren Aquilina: 18 years old. Very interested in software development as can be shown by previous experience in Java and newly acquired knowledge with the C programming language. He brings excellent debugging skills to the team. His interests are physical activity and social gatherings.

Ylenia Zammit: 18 years old. Interested in web development with previous experience in JavaScript and HTML. She brings excellent motivation to the team as well as efficient problem solving techniques. Her interests include Karate and jogging.

Daniel Camilleri: 19 years old. Intreseted in software and hardware development by building his own personal computer on the hardware side and learning basic Java programming and currently learning programming in C. He brings excellent quality and unit testing. His interests are computer hardware and gaming.

2 Project Information

Github Link : `https://github.com/danielsna/The-IT-Crew`

The URL to Jenkins project : `https://jenkins-ict.research.um.edu.mt/job/The%20IT%20Crew/`
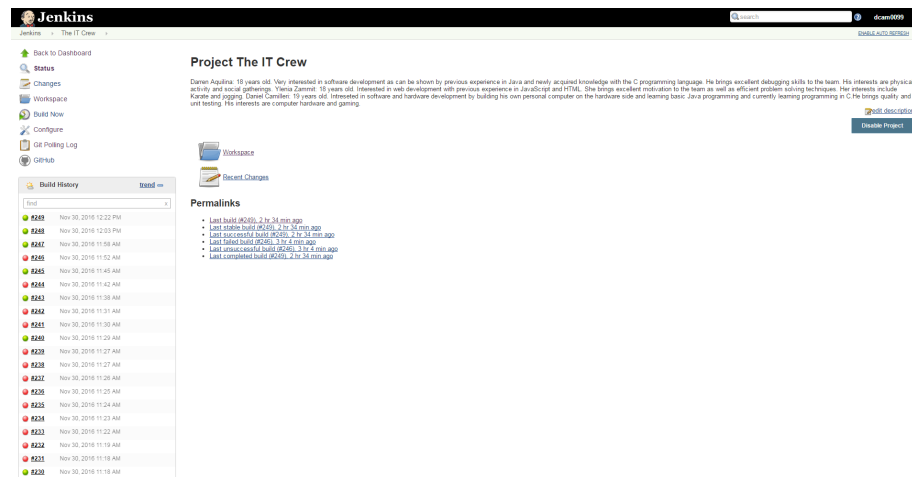
3   Screen shots of key parts of Jenkins configuration

Figure 1: Build output
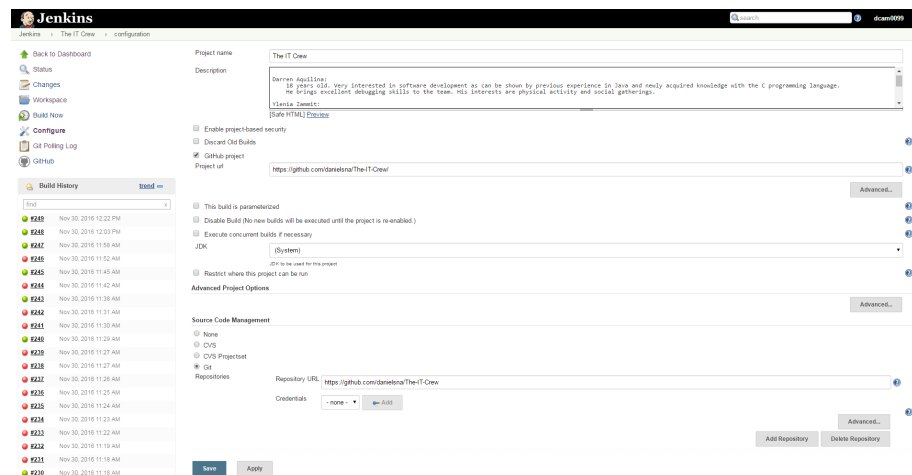
Figure 2: Configuration Page: Part1
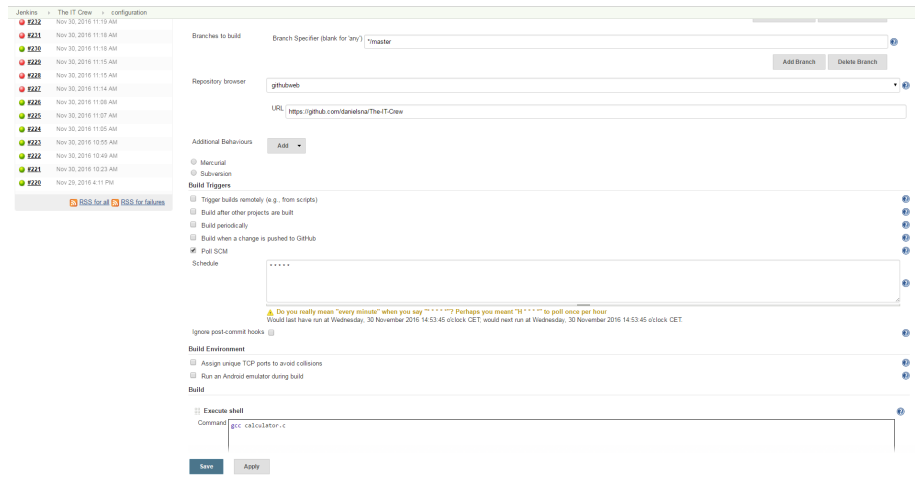
Figure 3: Configuration Page: Part2

Figure 4: Executing Shell Command

4 Screen shots of Generating and Fixing Errors

Figure 5: Error generated by Daniel

Figure 6: Error fixed by Daniel

Figure 7: Error generated by Ylenia

Figure 8: Error fixed by Ylenia

Figure 9: Error generated by Darren

Figure 10: Error fixed by Darren

Workspace of The IT Crew on master

📁 .git
📁 .idea
📁 cmake-build-debug/CMakeFiles
📁 Coding
📁 Documentation
📄 CMakeLists.txt   193 B 🖼 view

🗃 (all files in zip)

Figure 11: Error fixed by Darren
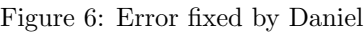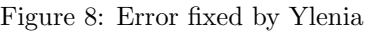
5 Source Code Listing

```c
calculator.c

#include <stdio.h>
char get_first(void);

int main (void)
{
    char ch;
    float num1, num2;
    num1 = num2 = 0;
    do{
        printf("\nEnter the operation of your choice:
        \na. add\t\ts.
        subtract\nm.multiply\td. divide\nq.quit");
        ch = get_first();
        switch (ch)
        {
            case 'a':
                printf("\nEnter first number: ");
                while (scanf("%f", &num1) != 1)
                {
                    while (getchar() != '\n');
                    printf("\nPlease enter a number,
                     such as 2.5,
                     -1.78E8, or 3: ");
                }
                printf("\nEnter second number: ");
                while (scanf("%f", &num2) != 1)
                {
                    while (getchar() != '\n');
                    printf("\nPlease enter a number,
                     such as 2.5,
                     -1.78E8, or 3: ");
                }
                printf("%.2f + %.2f = %.2f", num1, num2,
                 num1 + num2);
                while (getchar() != '\n');
                break;
            case 's':
                printf("\nEnter first number: ");
                while (scanf("%f", &num1) != 1)
                {
                    while (getchar() != '\n');
```

```c
            printf("\nPlease enter a number,
             such as 2.5,
             -1.78E8, or 3: ");
        }
        printf("\nEnter second number: ");
        while (scanf("%f", &num2) != 1)
        {
            while (getchar() != '\n');
            printf("\nPlease enter a number,
             such as 2.5,
             -1.78E8, or 3: ");
        }
        printf("%.2f - %.2f = %.2f", num1, num2,
         num1 - num2);
        while (getchar() != '\n');
        break;

case 'm':
        printf("\nEnter first number: ");
        while (scanf("%f", &num1) != 1)
        {
            while (getchar() != '\n');
            printf("\nPlease enter a number,
             such as 2.5,
             -1.78E8, or 3: ");
        }
        printf("\nEnter second number: ");
        while (scanf("%f", &num2) != 1)
        {
            while (getchar() != '\n');
            printf("\nPlease enter a number,
             such as 2.5,
             -1.78E8, or 3: ");
        }
        printf("%.2f * %.2f = %.2f", num1, num2,
         num1 * num2);
        while (getchar() != '\n');
        break;
case 'd':

        printf("\nEnter first number: ");
        while (scanf("%f", &num1) != 1)
        {
            while (getchar() != '\n');
            printf("\nPlease enter a number,
             such as 2.5,
```

```c
                    -1.78E8, or 3: ");
                }

                printf("\nEnter second number: ");
                while ((scanf("%f", &num2) != 1)
                 && num2 == 0)
                {
                    while (getchar() != '\n');
                    printf("\nPlease enter a number
                    other than 0,
                    such as 2.5, -1.78E8, or 3: ");
                }
                printf("%.2f / %.2f = %.2f", num1, num2,
                 num1/num2);
                while (getchar() != '\n');
                break;
            case 'q':
                break;
            default:
                printf("\nPlease enter 'a', 's', 'm', 'd'
                 or 'q' to quit :\n");
        }
    }while (ch != 'q');
    return 0;
}

char get_first(void)

{

    int ch;
    ch = getchar();
    while (getchar() != '\n')
    continue;
        return ch;

}
```

6   LaTeX Source Code

```
\documentclass[UTF8]{article}
\usepackage{graphicx}
\usepackage{listings}
\usepackage{hyperref}
\graphicspath{ {Assignment3/} }


\begin{document}


\title{%
  CPS 1010- Collaborative Practical Project\\
  \vspace{5mm}
  \large Assignment 3-Issue Tracking and Continuous Integration}
\vspace{100mm}
\author{Ylenia Zammit, Darren Aquilina, Daniel Camilleri}
\date{28th November 2016}
\maketitle

\newpage
\section{Team Information}
Our team consists of three members, Daniel Camilleri,
Ylenia Zammit and Darren Aquilina.
\vspace{5mm}
\\
Darren Aquilina:
        18 years old. Very interested in software development
        as can be shown by previous experience in Java and
        newly acquired knowledge with the C programming language.
        He brings excellent debugging skills to the team. His
         interests are physical activity and social gatherings.
\vspace{5mm}
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        18 years old. Interested in web development with
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        She brings excellent motivation to the team as well
         as efficient problem solving techniques.
        Her interests include Karate and jogging.
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and hardware development by building his own personal
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                    He brings excellent quality and unit testing.
                       His interests are computer hardware and gaming.
\newpage
\section{Project Information}
Github Link : \url{https://github.com/danielsna/The−IT−Crew}
\vspace{5mm}
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The URL to Jenkins project : \url{https://jenkins−ict.
research.um.edu.mt/job/The%20IT%20Crew/}
\newpage
\section{Screen shots of key parts of Jenkins configuration}
\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{JenkinsSetup0}
  \caption{Build output}
\end{figure}

\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{JenkinsSetup1}
  \caption{Configuration Page: Part1}
\end{figure}

\newpage
\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight
  ,keepaspectratio]{JenkinsSetup2}
  \caption{Configuration Page: Part2}
\end{figure}

\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{ExecuteShell}
  \caption{Executing Shell Command}
\end{figure}

\newpage
\section{Screen shots of Generating and Fixing Errors}
\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{Break1Daniel.PNG}
  \caption{Error generated by Daniel}
\end{figure}

```latex
\newpage
\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{BreakFix1Daniel.PNG}
  \caption{Error fixed by Daniel}
\end{figure}

\newpage
\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{Break2Ylenia.PNG}
  \caption{Error generated by Ylenia}
\end{figure}

\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{Fix2Ylenia.PNG}
  \caption{Error fixed by Ylenia}
\end{figure}

\newpage
\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{Break3Darren.PNG}
  \caption{Error generated by Darren}
\end{figure}

\newpage
\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{BreakFix3Darren.PNG}
  \caption{Error fixed by Darren}
\end{figure}

\begin{figure}[h]
  \includegraphics[width=\textwidth, height=\textheight,
  keepaspectratio]{Workspace}
  \caption{Error fixed by Darren}
\end{figure}

\newpage
\section{Source Code Listing}
\begin{lstlisting}
calculator.c

#include <stdio.h>
```

```c
char get_first(void);

int main (void)
{
    char ch;
    float num1, num2;
    num1 = num2 = 0;
    do{
        printf("\nEnter the operation of your choice:
        \na. add\t\ts.
        subtract\nm.multiply\td. divide\nq.quit");
        ch = get_first();
        switch (ch)
        {
            case 'a':
                printf("\nEnter first number: ");
                while (scanf("%f", &num1) != 1)
                {
                    while (getchar() != '\n');
                    printf("\nPlease enter a number,
                     such as 2.5,
                     -1.78E8, or 3: ");
                }
                printf("\nEnter second number: ");
                while (scanf("%f", &num2) != 1)
                {
                    while (getchar() != '\n');
                    printf("\nPlease enter a number,
                     such as 2.5,
                     -1.78E8, or 3: ");
                }
                printf("%.2f + %.2f = %.2f", num1, num2,
                 num1 + num2);
                while (getchar() != '\n');
                break;
            case 's':
                printf("\nEnter first number: ");
                while (scanf("%f", &num1) != 1)
                {
                    while (getchar() != '\n');
                    printf("\nPlease enter a number,
                     such as 2.5,
                     -1.78E8, or 3: ");
                }
                printf("\nEnter second number: ");
                while (scanf("%f", &num2) != 1)
```

```c
{
    while (getchar() != '\n');
    printf("\nPlease enter a number,
     such as 2.5,
     -1.78E8, or 3: ");
}
printf("%.2f - %.2f = %.2f", num1, num2,
 num1 - num2);
while (getchar() != '\n');
break;

case 'm':
    printf("\nEnter first number: ");
    while (scanf("%f", &num1) != 1)
    {
        while (getchar() != '\n');
        printf("\nPlease enter a number,
         such as 2.5,
         -1.78E8, or 3: ");
    }
    printf("\nEnter second number: ");
    while (scanf("%f", &num2) != 1)
    {
        while (getchar() != '\n');
        printf("\nPlease enter a number,
         such as 2.5,
         -1.78E8, or 3: ");
    }
    printf("%.2f * %.2f = %.2f", num1, num2,
     num1 * num2);
    while (getchar() != '\n');
    break;
case 'd':

    printf("\nEnter first number: ");
    while (scanf("%f", &num1) != 1)
    {
        while (getchar() != '\n');
        printf("\nPlease enter a number,
         such as 2.5,
         -1.78E8, or 3: ");
    }

    printf("\nEnter second number: ");
    while ((scanf("%f", &num2) != 1)
     && num2 == 0)
```

```c
                    {
                        while (getchar() != '\n');
                        printf("\nPlease enter a number
                        other than 0,
                        such as 2.5, -1.78E8, or 3: ");
                    }
                    printf("%.2f / %.2f = %.2f", num1, num2,
                     num1/num2);
                    while (getchar() != '\n');
                    break;
                case 'q':
                    break;
                default:
                    printf("\nPlease enter 'a', 's', 'm', 'd'
                     or 'q' to quit :\n");
            }
    }while (ch != 'q');
    return 0;
}

char get_first(void)

{

    int ch;
    ch = getchar();
    while (getchar() != '\n')
    continue;
        return ch;

}
```